H. M. MacKay

McGill University

MONTREAL

ANNUAL CALENDAR

FOR SESSION 1915-1916

WITH

PASS LISTS

FOR SESSION 1914-1915

MONTREAL
1915

PRESENTED TO THE LIBRARY
BY

Prof.R.E.Jamieson.

IXM .C.2
1915-16

McGILL UNIVERSITY LIBRARY

296037 1934

McGILL UNIVERSITY

MONTREAL

FOUNDED UNDER BEQUEST OF THE HON. JAMES McGILL;
ESTABLISHED AS A UNIVERSITY BY ROYAL
CHARTER IN 1821, AND REORGANIZED
UNDER AN AMENDED CHARTER
IN 1852



CALENDAR

FOR SESSION 1915-16

MONTREAL:

PRINTED FOR THE UNIVERSITY BY THE GAZETTE PRINTING CO., LIMITED.

1915

INDEX

	Page
Academic Board	4
Academy Diploma	11, 164
Academic Dress	84
Academic Year	44
Accounting, Course in	252
Ad Eundem Degrees	13
Administrative Officers	xix
Admission	13
Ad Eundem Statum	42
By Examination	15
Minimum Age for	43
Of Partial Students	45
Of Students from other Universities	42
To the Bar	280
To the Study and Practice of Medicine	285
Advanced Courses in Arts	87, 88
Advanced Courses in Medicine	321
Advisory Committee, Faculty of Law	267
Advisory Committee, Faculty of Arts	87
Affiliated Colleges	6, 7
Age for Admission	43
Agency and Partnership	272
Agriculture, Faculty of	10, 365
Alexander (Charles) Scholarship	55
Alexandra Hospital	330
Algebra for Matriculation	30, 31, 42
Course in (Arts)	142
(Applied Science)	224
Analytical Chemistry	148
Anatomical Museum	387
Anatomy	301
Anglo-Saxon	112
Angus Scholarship	65
Anne Molson Gold Medal	67
Annie McIntosh Prize	59
Applied Mechanics, Courses in	209
Applied Science, Faculty of	9, 166
Arabic, Courses in	128
Aramaic, Courses in	129
Archæology	199
Architectural Geometry	203
Architecture :—	
Course in	171
Subject of	197
Argumentation, Course in	110
Arithmetic for Matriculation	27
Arts, Faculty of	8, 86
Course for B.A.	86, 89
For B.Sc. (in Arts)	91
Assaying, Courses in	236, 237
Laboratories	381
Associations	434

296037

	PAGE
Astronomical Observatory	379
Astronomy, Courses in	143
Athletic Association, University	83
Athletics	82
Athletics Committee of Corporation	81
Attendance, Rules regarding	48
B. A. Degree	8, 86
Exemptions for Professional Students	97
Honour Courses for	89
B. A. and B. C. L.	100
B. A. and B. Sc.	97
B. A. and D. D. S.	99
B. A. and M. D.	99, 319
Babcock and Wilcox Scholarship	69
Bachelor of Music	335
Bacteriology	305
Barbara Scott Scholarship	55
B. Arch. Degree Regulations	9, 171
Bar Regulations, Province of Quebec	280
Baylis Scholarship	63
B. C. L. Degree, Regulations	9, 265
Bedford Graduates' Society Exhibition	56
Biological and Food Chemistry	206
Biology, Courses in	154, 296
Board of Governors	xvii
Their Powers	3
Board and Residence	50
In Macdonald College	368
In Royal Victoria College for Women	361
Botanical Laboratories	375
Botany :	
Course in (Arts)	154
Course in (Medicine)	296
For Matriculation	36
Bridge Design	212
British Association Exhibitions	61
British Association Medal	68
British Columbia, McGill University College of	5
British School of Classical Studies, Athens	103
British School of Classical Studies, Rome	106
Browne (George Creeford) Scholarship	60
B. S. A. Degree	370
B. Sc. and M.D.	95
B. Sc. Degree, Course for in Faculty of Arts	91, 95
In Faculty of Applied Science	166
Building Construction	201
Buildings	371
Bursaries, Dr. James Douglas	63
Calculus	143, 225
Calendar of Meetings, etc	xl
Canadian Officers' Training Corps	346
Canadian Mining Institute	62, 257
Canadian Society of Civil Engineers	62, 257
Cassavant Scholarship	65
Caution Money	72–76
Cement Laboratory	375

	PAGE
Centre Building	371
Certificates accepted for Matriculation	18
In Applied Science	62
In Arts	67
Chapman Gold Medal	67
Chemical Engineering, Outline of Course in	176
Chemistry Building, The Macdonald	373
Chemistry :—	
Course in (Applied Science)	174
For Matriculation	36
Subject of (Arts)	147
(Applied Science)	204
(Medicine)	298
Laboratories	376
Civil Engineering :—	
Course in	178
Subject of	209
Civil Procedure, Course in	275
Classics, Course in	101
Classes of Students	45
Clinical Instruction in Medicine	325
Clinical Medicine	309
Clinical Microscopy	311
Clinical Surgery	313
Clubs	434
Colleges, Affiliated	6
College Grounds, Management of	81
Colleges, Incorporated	5
Commerce, School of	159
Commercial Law	274
Commissions in the Regular Army	347
Committees of Governors and Corporation	xx
Company Law	273
Comparative Literature	114
Comparative Philology	107
Conditioned Undergraduates	45
Conduct of Students	79
Conducting Transportation	255
Congregational College	7
Conservatorium of Music	11, 334, 371
Conservatorium Scholarship	65
Constitution of the University	3
Constitutional Law	141, 270
Contracts, Law of	276
Corporation, The	4
Corporations, Course in Law of	273
Coster Memorial Prize	59
Cost of Education	50
Courses for B. A	86
For B.C.L	267
For B.Sc. in Arts	91
For B.Sc. in Applied Science	168
For D.D.S	332
For Diploma of Commerce	159
For M.D., C.M	289, 295

	PAGE
Criminal Law	274
Crystallography	222
Dates for Session 1915-1916	44
Dawson Fellowship	63
D.C.L. Degree, Requirements for	13, 278
Degrees Granted by the University	12
Dental Department, Faculty of Medicine	332
Dental Metallurgy	238
Department of Music	334
Department of Physical Education	338
Dermatology	319
Descriptive Geometry	215
Designing	197, 232
D.D.S. Degree, Requirements for	332
Diocesan College	7
Diploma of Commerce	159
Diploma of Licentiate in Music	334
Diploma of Public Health, Course for	322
Discipline	79
D. Litt. Degree, Requirements for	12
Doctor of Music Degree	337
Doctor of Philosophy, Course for	352
Dominion Medical Registration	286
Double Courses :—	
Arts and Applied Science	97
" " Law	100
" " Medicine	95, 99, 319
" " Theology	100
Douglas (Dr. James) Fellowships and Bursaries	63
Drake (Joseph Morley) Prize	64
Drawing, Courses in	203, 215
Drawing (Mechanical)	225, 227, 230
Dress, Academic	84
D. Sc. Degree, Requirements for	13
Dynamics	143
Early English Text Society's Prize	59
Economics	138, 223, 252
Education	140
Electrical Design	218
Electrical Engineering :—	
Course in	180
Laboratories	377
Subject of	216
Electrical Theory	247
Electricity	146
Electric Lighting	218, 246
Electric Railways	255
Electric Traction	218
Electro-Chemistry	208
Electro-Metallurgy	239
Embryology	157
Engineering Building	373
Engineering, Courses in	168
Engineering Economics	223

	PAGE
Engineering Law	223
Engineering Societies	257
English :—	
Courses in	108, 219, 251, 253
For Matriculation	27, 40
Summer Reading in Applied Science	193
English Grammar for Matriculation	26
Entrance Examination	15
Certificates accepted for	18
Fees	20
For Agriculture	25
" Applied Science	23
" Arts	21
" Dentistry	24
" Law	25
" Medicine	24
" Music	26
Regulations	15
Requirements in each Subject	26
Entrance Exhibitions in Arts	56
Equivalent Standing for Students from other Universities	42
Ethics	132
Evidence, Course in	277
Examinations :—	
For Entrance	15
For Exhibitions (in Arts)	54
For Scholarships (in Arts)	57
In Applied Science	167
In Arts	96
In Law	269
In Medicine	289
Supplemental, in Arts	97
Time Tables of, in Arts	1
Exemptions from Matriculation Examination	18
Exemptions in Arts for Students in Professional Faculties	97
For Students in Theological Colleges	100
Exhibitions	53
Bedford Graduates' Society	56
British Association	61
Childs	61
First Year Entrance in Arts	56
Howard Murray	57
In Applied Science	60
In Arts	54
In Law	64
In Music	65
Mackenzie	57
Massey (Samuel)	55, 62
Matriculation	56
Morris (Alexander)	64
Narcissa Farrand	56
Ottawa Valley	54
Redpath (Jane)	55

	PAGE
Exhibitions :—Continued	
Ross P. S.	54
Scott	61
Second Year in Arts	57
Trafalgar	56
And see Scholarships.	
Expenses of Board and Education	50
Experimental Engineering	234
Extension Courses	11
Faculties, General Statement of	8
Faculty of Applied Science	9, 166
Of Arts	8, 86
Of Law	9, 265
Of Medicine	10, 283
Of Agriculture	10, 365
Farrand (Narcissa) Exhibition	56
Fees	70
For Matriculation	20
In Applied Science	72
In Arts	70
In Dentistry	76
In the Graduate School	77
In Law	76
In Macdonald College	369
In Medicine	74
In Music	78
Miscellaneous	78
Fellows of the University	xvii, 3
Fellowships in Applied Science	63
Fellowships in Medicine	292
Field Schools	
In Mining	244
In Surveying	249
Fire Assaying	236, 237
First Year Course in Arts	86
In Applied Science	169
First Year Exhibitions in Arts	56
Foundations and Masonry	211
Foundation of the University	1
Of the Faculty of Medicine	283
Of Macdonald College	365
Fourth Year Course in Arts	88
Freehand Drawing, Courses in	203, 215
Freight Service	251, 253
French :—	
Courses in	118
For Matriculation	29, 41
French Summer School for Teachers	165
Frost (George Henry) Loan Fund	66
Genetics	155
Geodesy	248
Geodetic Laboratory	378
Geography for Matriculation	27
Geology	150, 220

	PAGE
Geometry :—	
Courses in	142, 224
Descriptive	215
For Matriculation	31, 34, 42
German :—	
Courses in	121
For Matriculation	30, 42
Gifts, Course in	275
Government of the University	3
Governor General's Gold Medal	67
Governor General's Silver Medal	68
Governors, Board of	xvii
Their Powers	3
Gowns	84
Graduate Courses in Medicine	321
Graduate School	10, 349
Graduates' Societies	443
Graduate Students	45
Graphical Statistics	209
Greek :—	
Courses in	101
For Matriculation	28, 41
Grounds, Management of	81
Gymnasia	338
Gymnastics, Classes for Men in	338
Classes for Women in	339
Gynaecology	316
Hannah Willard Lyman Exhibition	55
Harrington Fellowship	63
Heating and Ventilation of Buildings	233
Hebrew	126
Higher Degrees	12,349
Hils (Joseph) Prize	64
Hiram Mills Gold Medal	67
History	135
For Matriculation	27, 40
Of the Faculty of Medicine	283
Of the University	1
History of Law, Course in	271
History of Medicine, subject of	312
Holidays in Law	267
Holmes Gold Medal	69
Hoods	84
Honours in Applied Science	68
In Medicine	290
Honour Courses for B.A.	89
For B.Sc. in Arts	91
Hooper Scholarship	65
Hospitals	326
Household Science	366
Howard Murray Exhibitions	55
Hunt, Dr. T. Sterry Scholarship	54
Hydraulic Machines	213

	PAGE
Hydraulics	213
Laboratory	279
Hydro-Metallurgy	239
Hydrostatics	143
Hygiene, Museum of	387
" Subject of	308
" Special Courses in	321
Incorporated Colleges	5
Industrial Chemistry	208
Instruction, Officers of	xxiv
Interlocking	253
International Law, Course in	276, 277
Jane Redpath Exhibition	55
Jones (Hon. Robert) Scholarship	63
Junior Bar Prize	65
Junior Matriculation	15
Jurisprudence (Medical)	308
Laboratories	375
Land Surveyors' Examination	250
Latin :—	
Courses in	103
For Matriculation	28, 41
Law for Engineers	223
Law, Faculty of	9, 265
Law, Railway	254
Lease, Law of	276
Lecture Courses :—	
In Applied Science	197
In Arts	101
In Law	270
In Medicine	296
Lectures, Time Tables of, in Arts	liii
In Law	liv
Lecturers, List of	xxiv
Legal History and Bibliography, Courses in	271
Lettering	215
Library Instruction, Summer School in	356
Library, The University	355, 373
The Law	265
The Medical	331
License Requirements in Medicine	285
Licentiate in Music, Diploma of	334
List of Students	391
Living Expenses	50
LL.D. Degree	13
Loan Funds	66
Lodgings	50
For Women	361

	Page
Logan Gold Medal	67
Logic	131
Locomotive Engineering	233
Lyman (Hannah Willard) Exhibition	55
M. A. Degree	350
Macdonald Chemistry and Mining Building	373
Macdonald College	5, 365
Macdonald Engineering Building	373
Macdonald Physics Building	373
McGill College, Founding of	1
McGill, Hon. James	1
McGill Union, The	374
McGill University College of British Columbia	5
Machine Design	229, 233
McIntosh (Annie) Prize	59
Mackenzie Exhibitions	55, 57
Macnaghten (Chester) Prize	54
Magnetism	146, 246
Manufacturing Plant Design	235
Mapping	248, 252
" (Mine)	240
Map Projections	216
Marine Engineering	233
Marriage Covenants, Course in Law of	276
Massey (Rev. Samuel) Exhibition	55, 62
Materials of Construction	209
Maternity Hospital	329
Mathematics, Courses in (Arts)	142
(Applied Science)	224
For Matriculation	30, 42
Matriculation Examination	15
Certificates accepted for	18
Details of work in each subject	26
Fees for	20
Regulations	15
Subjects of Examination	21
Matriculation Exhibitions	56
M. D. Degree	287
Mechanical Engineering :—	
Course in	182
Laboratory of	379
Subject of	225
Mechanics	209, 224
Mechanical Drawing	225, 227, 230
Mechanics of Machines	227, 228, 232
Medals awarded in Arts	67
For Physical Education	338
In Applied Science	68
In Law	69
In Medicine	69
Medical Building	371
Medical Council Registrars	285
Medical Jurisprudence	308

	PAGE
Medical Library	331
Medicine, Faculty of	10, 283
Medicine, History of	312
Medicine, Subject of	309
Mental Diseases	318
Metallurgical Calculations	237
Metallurgical Machinery	239
Metallurgy :—	
Course in	186
Laboratories	381
Subject of	236
Metallurgical Engineering, Course in	184
Microscopy (Clinical)	311
Middle English	113
Military Science	11, 344
Mills (Major H.) Scholarship	55
Mine Mapping	240
Mineral Analysis	208
Mineralogy	151, 220
Mining Building, The Macdonald	373
Mining Engineering :—	
Course in	188
Laboratories	382
Subject of	240
Mining and Ore Dressing Machinery	241
Mining Summer School	192, 244
Modelling	203
Modern Languages	118
Moeso-Gothic	113
Montreal General Hospital	327
Morals, Regulations re	79
Morris (Alexander) Exhibition	64
M. Sc. Degree, Requirements for	351
Municipal Engineering	211
Municipal Law	273
Murray (Howard) Exhibitions	55, 57
Mus. Bach. Degree	335
Mus. Doc. Degree	337
Museums	387
Museum, Redpath	373, 389
Music, Courses in	334
Narcissa Farrand Scholarship	56
Neil Stewart Prize	58
Obligations, Course in Law of	271
Observatory, The	374, 379
Obstetrics	315
Officers of Instruction, etc	xxiv
Officers' Training Corps	346
Opening Date	44
Ophthalmology	317
Ordinary Course for B. A	86

	Page
Ordinary Course for B. Sc. in Arts	91
Ore Deposits	152, 221
Ore Dressing	240
Ore Dressing Laboratory	382
Ore Dressing Machinery	241
Organic Chemistry	148, 205
Oriental Languages	124
Ornament and Decoration	199
Oto-Laryngology	317
Ottawa Valley Graduates' Society Exhibition	54
Palæontology	152
Parasitology	306
Partnership	272
Partial Students, Definition of	45
Pass Standard for Matriculation	17
Passenger Service	254
Pathological Museum	388
Pathology	304
Pediatrics	312
Penhallow Prize	59
Persons, Course in Law of	274
Peter Redpath Museum	373, 389
Perspective Drawing	203
Petrography	152, 221
Petrographical Laboratory	383
Pharmacology and Therapeutics	307
Ph. D. Degree, Requirements for	352
Philosophy	131
Physical Chemistry	149, 206
Physical Education	43, 338, 362
McGill School of	341
Physical Examination	43
Physical Geography :—	
Courses in	152, 222, 254
Physical Laboratories	384
Physics Building, The Macdonald	373
Physics :—	
Courses in Arts	145
" " Applied Science	245
" " Medicine	300
For Matriculation	38, 42
Physiological Laboratories	384
Physiology	155, 303
Political Economy	138, 251
Political Science	138
Post-Graduate Courses in Medicine	321
Power Plant Design	233
Power Station	374
Practical Railway Training	256
Prerequisite Subjects	258
Presbyterian College	7
Prescription, Law of	276

	Page
Prince of Wales Gold Medal	67
Principal, The	xvii, 3
Prizes in Arts	58
In Applied Science	60
In Gymnastics	340
In Law	64
In Medicine	64
Professors, List of	xxiv
Promotion in Arts, Rules re	97
Psychology	131, 133
Psychological Laboratory	385
Public Health, Diploma Course for	322
Qualitative Analysis	148, 205
Quantitative Analysis	148, 206
Railway Economics	252
Railway Engineering	251, 255
Railway Law	254
Railway Mechanical Engineering	252, 254
Railway Operation	253
Railway Organization and Accounting	252
Railway Scholarships	60
Railway Training (Practical)	256
Railway Transportation :—	
Course in	190
Subjects of Course in	251
Real Property Law	276
Reciprocity (Medical)	286
Redpath Museum	373, 389
Register of Students	391
Registrars of Provincial Medical Councils	285
Registration, Law of	276
Registration (University)	46
Registration (Medical)	286
Requirements for Entrance	15
Residence and Board	50
For Women	361
Rhodes Scholarship	53
Roman Law, Courses in	141, 270
Ross (P. S.) Exhibition	54
Royal Victoria College for Women	5, 359, 374
Royal Victoria Hospital	328
Sanskrit	106
Scholarships	53
Barbara Scott	55
Charles Alexander	55
Baylis	63
George Creeford Browne	60
In Applied Science	60
H. M. Comsrs. for the Exhibition of 1851	53
Mills (Major H.)	55
Narcissa Farrand	56
Robert Jones	63
Rhodes	53

Scholarships :—Continued. PAGE

Sterry Hunt 54
Third Year in Arts 57
Trafalgar 56
And see Exhibitions.
School of Commerce 159
School of Physical Education 341
School for Teachers 366
Science Scholarship, 1851 53
Scott Exhibition 61
Scott (Barbara) Scholarship 55
Second Year Course in Arts 87
In Applied Science 170
Second Year Exhibitions in Arts 57
Semitic Languages 124
Senior Matriculation Examination 40
Fees for 20
Subjects of Examination for 22
Session, Duration of 44
Shakspere Gold Medal 67
Shakspere Society's Prize 59
Shop Processes and Management 232
Shopwork 226, 228, 231
Shorthand 252
Signal and Interlocking Design 253
Signals 253
Societies, Associations and Clubs, Officers of 434
Statics 143
Sterry Hunt Scholarship 54
Strathcona Hall 374
Strength of Materials 210
Strength of Materials Laboratories 385
Structural Design 211
Structural Engineering 202
Students, Classes of 45
Lists of 391
Number in Attendance 433
Subjects for Matriculation 21
Subjects, Prerequisite 258
Substitutions 275
Successions, Course in the Law of 275
Summer Essays and Reading in Applied Science 193

Summer Schools :—

In Applied Science 192
In French 165
In Library Methods 356
In Metallurgy 192, 237
In Mining 192, 244
In School Art 165
In Surveying 192, 249
Supplemental Examinations in Arts 97
In Applied Science 167
In Medicine 291
Surgery 313

	PAGE
Surveying	247
Survey Summer School	249
Surveyors, Examination for	250
Sutherland Gold Medal	69
Syriac	126, 129
Teachers' Training Committee, Courses under	165
Teachers, School for	366
Teachers, Training of	164
Telegraphy	252
Text Books for Matriculation	27
Text Books in Medicine	293
Theological Colleges, Affiliation of	7
Theory of Structures	212
Therapeutics	307
Thermodynamics	230, 234
Third Year Courses in Arts	88
Third Year Scholarships in Arts	57
Time Tables of Examinations in Arts	1
Time Tables of Lectures in Arts	lii
Time Tables of Lectures in Law	liv
Trafalgar Scholarship	56
Training of Teachers	164
Training in Military Science	344
Transportation, Course in	190
Trigonometry :—	
Courses in	142, 224
For Matriculation	36, 42
Trusts, Law of	275
Undergraduates, Definition of	45
Union, The McGill	374
University Buildings	371
University, Government of	3
University Library, The	355, 373
University Societies	434
Ventilation of Buildings	233
Wesleyan College	7
Wicksteed Medals for Physical Education	338
Wills, Law of	275
Wood Gold Medal	69
Workshops, Description of	390
Workshops, Instruction in	226, 228, 231
Works, Organization and Accounting	235
Y. M. C. A. of McGill University	374, 438
Zoological Laboratories	386
Zoology :—	
Course in Arts	157
" " Medicine	297

Governing Body of the University.

VISITOR.

FIELD-MARSHAL HIS ROYAL HIGHNESS THE DUKE OF CONNAUGHT AND OF STRATHEARN, K.G., K.T., K.P., P.C., G.C.B., G.C.S.I., G.C.M.G., G.C.I.E., G.C.V.O., GOVERNOR-GENERAL OF CANADA, ETC.

GOVERNORS.

SIR WILLIAM C. MACDONALD, President and Chancellor of the University.
SIR WILLIAM PETERSON, K.C.M.G., LL.D., D.Litt, Principal and Vice-Chancellor.
GEORGE HAGUE, ESQ.
EDWARD B. GREENSHIELDS, ESQ., B.A., LL.D.
HON. JOHN SPROTT ARCHIBALD, M.A., D.C.L.
CHARLES J. FLEET, ESQ., B.A., B.C.L., K.C.
RICHARD B. ANGUS, ESQ.
SIR WILLIAM C. VAN HORNE, K.C.M.G.
SIR THOMAS G. RODDICK, M.D., LL.D., F.R.C.S.
W. M. BIRKS, ESQ.
G. E. DRUMMOND, ESQ.
J. W. ROSS, ESQ.
JAMES DOUGLAS, ESQ., B.A., M.D., LL.D.
F. HOWARD WILSON, ESQ.
CHARLES B. GORDON, ESQ.
H. VINCENT MEREDITH, ESQ.
H. S. HOLT, ESQ.
J. K. L. ROSS, ESQ., B.Sc.
PERCIVAL MOLSON, ESQ., B.A.

PRINCIPAL.

SIR WILLIAM PETERSON, K.C.M.G., LL.D., D.Litt., Vice-Chancellor.

FELLOWS.

Ex-Officio.

CHAS. E. MOYSE, LL.D., Vice-Principal and Dean of the Faculty of Arts.
FRANK D. ADAMS, Ph.D., D.Sc., F.R.S., Dean of the Faculty of Applied Science.
ROBERT WARDEN LEE, M.A., B.C.L., Dean of the Faculty of Law.
H. S. BIRKETT, M.D., Dean of the Faculty of Medicine.
F. C. HARRISON, D.Sc., Principal of Macdonald College.
JAMES HARKNESS, M.A., F.R.S.C., Chairman of the Committee on Graduate Studies.

SINCLAIR LAIRD, M.A., B.Phil., Head of the Teachers' Training Department, Macdonald College.
H. C. PERRIN, MUS. DOC., Director of the McGill Conservatorium of Music.
ETHEL HURLBATT, M.A., Warden of the Royal Victoria College.
REV. HERBERT SYMONDS, LL.D., Chairman Protestant Board of School Commissioners, Montreal.
WELLINGTON DIXON, B.A., Rector of the Montreal High Schools.

To retire 1st September, 1916.

GREGOR BARCLAY, B.A., B.C.L., Representative Fellow in Arts.
R. F. RUTTAN, B.A., M.D., D.Sc., F.R.S.C., Elective Fellow, Faculty of Medicine.
C. H. GOULD, B.A., Governors' Fellow.
HOWARD T. BARNES, D.Sc., F.R.S., Elective Fellow, Faculty of Arts.
REV. E. M. HILL, D.D., Representative Fellow, Congregational College of Canada, Principal of the College.
FREDERICK J. TEES, B.A., M.D., Representative Fellow in Medicine.
REV. E. I. REXFORD, M.A., LL.D., Representative Fellow, Montreal Diocesan Theological College, Principal of the College.
H. O. KEAY, B.Sc., Elective Fellow, Faculty of Applied Science.
HON. ROBERT STANLEY WEIR, D.C.L., Representative Fellow in Law.

To retire 1st September, 1917.

REV. JOHN SCRIMGER, M.A., D.D., Representative Fellow, Presbyterian College, Montreal, Principal of the College.
J. M. ELDER, B.A., M.D., Representative Fellow in Medicine.
P. F. SISE, B.Sc., Representative Fellow in Applied Science.
HON. R. A. E. GREENSHIELDS, B.A., B.C.L., Representative Fellow in Law.
ARCHIBALD MCGOUN, M.A., B.C.L., K.C., Elective Fellow, Faculty of Law.
H. A. LAFLEUR, B.A., M.D. Elective Fellow, Faculty of Medicine.
D. A. MURRAY, Ph.D., Elective Fellow, Faculty of Applied Science.
————————, Governors' Fellow.
WILLIAM LOCHHEAD, B.A., M.Sc., Elective Fellow, Faculty of Agriculture.
W. W. WHITE, B.A., M.D., F.R.S.C., St. John, N.B., non-resident Representative Fellow (Maritime Provinces and Newfoundland).
H. M. TORY, D.Sc., LL.D., Edmonton, Alta, non-resident Representative Fellow (British Columbia, Alberta, Saskatchewan and Manitoba).
P. D. ROSS, B.A.Sc., Ottawa, non-resident Representative Fellow (Ontario).
ROBERT D. MACARTHUR, M.D., Chicago, Ill., non-resident Representative Fellow (countries outside of Canada and Newfoundland).

To retire 1st September, 1918.

ANDREW MACPHAIL, B.A., M.D., Representative Fellow in Arts.
REV. JAMES BARCLAY, M.A., D.D., LL.D., Governors' Fellow.
JOHN MACNAUGHTON, M.A., LL.D. (Queen's), Elective Fellow, Faculty of Arts.

S. B. SLACK, M.A. (Oxon.), Elective Fellow, Faculty of Arts.
REV. JAMES SMYTH, LL.D., Representative Fellow, Montreal Wesleyan Theological College, Principal of the College.
MILTON L. HERSEY, LL.D., Representative Fellow in Applied Science.
GEORGE E. ROBINSON, B.A., Representative Fellow, McGill University College of British Columbia, Vancouver, B.C.
J. G. ADAMI, M.A., M.D., LL.D., Governors' Fellow.
FRANCIS McLENNAN, B.A., B.C.L., Governors' Fellow.
E. B. PAUL, M.A., Representative Fellow, Victoria College, B.C.
J. R. DOUGALL, M.A., Governors' Fellow.

(The Governors, Principal and Fellows constitute, under the Charter, the Corporation of the University. For powers, see page 4.)

SECRETARY AND BURSAR.

WALTER VAUGHAN, M.A., OFFICE, EAST WING, McGILL COLLEGE.

UNIVERSITY REGISTRAR.

J. A. NICHOLSON, M.A., OFFICE, EAST WING, McGILL COLLEGE.

Office Hours:—9 *to* 5.

REGISTRAR OF THE FACULTY OF MEDICINE.

J. W. SCANE, M.D., MEDICAL BUILDING, McGILL UNIVERSITY.

UNIVERSITY LIBRARIAN.

CHARLES H. GOULD, B.A.

HONORARY REPRESENTATIVE IN GREAT BRITAIN.

W. A. EVANS, ESQ., M.A., Secretary Headmasters' Conference, 12 King's Bench Walk, Temple, London, E.C.

THE ACADEMIC BOARD.

(*Regular Meetings on the first Wednesday of December and March at* 8.15 *p.m.*)

CHAIRMAN—THE PRINCIPAL.

The Principal, the Deans of the several Faculties, the Professors and Associate Professors, and other members, not exceeding ten in number, of the teaching staff of the University, have been constituted, under the statutes, the Academic Board of the University, with the duty of considering such matters as pertain to the interests of the University as a whole and making recommendations concerning the same.

Committees.

FINANCE COMMITTEE OF THE GOVERNORS.

(Meeting on the second Thursday of each month, at 4 p.m.)

F. B. Greenshields, Esq.
C. J. Fleet, Esq.
W. M. Birks, Esq.
G. E. Drummond, Esq.
F. Howard Wilson, Esq.
Charles B. Gordon, Esq.
R. B. Angus, Esq.
Principal Peterson.
J. W. Ross, Esq. (*Treasurer*).
Percival Molson, Esq.

UNIVERSITY LIBRARY COMMITTEE.

(Meeting on the Monday before each Regular Meeting of Corporation, at 5 p.m.)

Members ex-officio.

Sir William Peterson (Principal), *Chairman.*
Mr. C. H. Gould (Librarian), *Secretary.*

To retire in 1915.

Prof. Paul T. Lafleur (*Representing Arts*).
Dr. F. G. Finley (*Representing Medicine*).
Francis McLennan, Esq., B.A., B.C.L. (*Representing Corporation*).

To retire in 1916.

C. J. Fleet, Esq., B.A., B.C.L. (*Representing the Governors*).
Dr. T. G. Roddick (*Representing the Governors*).
R. W. Lee, M.A., B.C.L. (*Representing Law*).
W. D. Lighthall, M.A., B.C.L. (*Representing Corporation*).
F. Cleveland Morgan, B.A. (*Representing Corporation*).
Dr. Andrew Macphail (*Representative Fellow*).

To retire in 1917.

Prof. S. B. Slack (*Representing Arts*).
Prof. H. M. MacKay (*Representing Applied Science*).
Dr. Wm. Gardner (*Representing Corporation*).

REPRESENTATIVES OF THE UNIVERSITY ON THE McGILL COLLEGE BOOK CLUB.

Dr. S. B. Leacock.
E. F Hebden, Esq.
G. B. Fraser, Esq.

REDPATH MUSEUM COMMITTEE.

(Meeting on the Monday before each Regular Meeting of Corporation, at 4.30 p.m.)

Principal Peterson, *Chairman.*
George Hague, Esq.
C. J. Fleet, Esq.
Dr. F. J. Shepherd.
Dr. F. D. Adams.
Prof. F. E. Lloyd.
Dr. Arthur Willey, *Hon. Curator.*

Committees.—*Continued.*

PHYSICS BUILDING COMMITTEE.

(Meeting on the Thursday before each Regular Meeting of Corporation, at 5 p.m.)

PRINCIPAL PETERSON.
DR. F. D. ADAMS.
DR. H. T. BARNES.
PROF. JAMES HARKNESS.
DR. R. F. RUTTAN.
DR. A. S. EVE.

ENGINEERING BUILDING COMMITTEE.

(Meeting on the third Monday of each month at 4.30 p.m.)

PRINCIPAL PETERSON.
DEAN ADAMS.
PROF. C. H. MCLEOD.
PROF. L. A. HERDT
C. J. FLEET, ESQ.

CHEMISTRY AND MINING BUILDING COMMITTEE.

(Meeting on the third Monday of each month at 4 p.m.)

PRINCIPAL PETERSON.
DEAN ADAMS.
DR. R. F. RUTTAN.
C. J. FLEET, ESQ.
DR. J. B. PORTER.
DR. H. T. BARNES.

RAILROAD TRANSPORTATION COMMITTEE.

PRINCIPAL PETERSON, *Chairman.*
PROF. H. O. KEAY.
SIR THOMAS G. SHAUGHNESSY.
DEAN ADAMS.
C. J. FLEET, ESQ.
E. J. CHAMBERLIN, ESQ.

COMMITTEE ON GRADUATE STUDIES.

PROF. JAMES HARKNESS, *Chairman.*
DR. F. D. ADAMS.
PROF. H. M. MACKAY.
DR. H. T. BARNES.
DR. C. W. COLBY.
R. J. DURLEY, Ma.E.
DR. CYRUS MACMILLAN, *Secretary.*

COMMITTEE ON MORALS AND DISCIPLINE.

DR. C. E. MOYSE, *Chairman.*
DR. F. D. ADAMS.
DEAN R. W. LEE.
HON. MR. JUSTICE ARCHIBALD.
DR. ANDREW MACPHAIL.

COMMITTEE ON STUDENTS' SOCIAL FUNCTIONS.

DR. C. E. MOYSE, *Chairman.*
PROF. C. H. MCLEOD.
DR. F. D. ADAMS.
DR. R. F. RUTTAN.
MISS ETHEL HURLBATT.

Committees.—*Continued.*

STANDING COMMITTEES OF THE FACULTY OF ARTS.

THE B. A. ADVISORY COMMITTEE.

THE DEAN (*Chairman*).
DR. LEACOCK.
DR. WALTER.
PROF. DALE.
PROF. SLACK.

THE B.Sc. ADVISORY COMMITTEE.

DR. BARNES (*Chairman*).
DR. ADAMS.
PROF. HARKNESS.
DR. WILLEY.
DR. RUTTAN.
PROF. LLOYD.
DR. EVE.
DR. BANCROFT.

TIME TABLE COMMITTEE.

DR. LEACOCK (*Chairman*).
MISS HURLBATT.

SCHOLARSHIPS AND EXHIBITIONS COMMITTEE.

DR. EVE (*Chairman*).
PROF. HARKNESS.
DR. WALTER.
DR. RUTTAN.
PROF. MACNAUGHTON.
DR. CALDWELL.
PROF. DALE.
PROF. LLOYD.

STANDING COMMITTEES OF THE FACULTY OF APPLIED SCIENCE.

ON ADMISSION OF STUDENTS FROM OTHER UNIVERSITIES.—The Dean (*Chairman*) and Professors Murray and MacKay.

ON REGISTRATION, STANDING AND PROMOTION.—Professors McLeod (*Chairman*), Porter, Murray and Keay. Mr. Newton (*Secretary*).

ON EXAMINATIONS AND TIME TABLE.—Professors Porter (*Chairman*), McLeod, Murray and MacKay.

McGILL CONSERVATORIUM COMMITTEE.

PRINCIPAL PETERSON, *Chairman*.
DR. H. C. PERRIN, *Director*.
DR. C. E. MOYSE.
DR. J. B. PORTER.
W. VAUGHAN, ESQ., M.A.
KENNETH R. MACPHERSON, ESQ.
LIET.-COL. FRANK MEIGHEN.
MISS CLARA LICHTENSTEIN.
W. BURGESS, *Secretary*.

COMMITTEE ON MILITARY INSTRUCTION.

PRINCIPAL PETERSON.
PROF. PERCY E. NOBBS.
DR. A. CAMPBELL GEDDES.
MAJOR A. A. McGEE.
PROF. C. M. McKERGOW.
DR. J. L. TODD.
DR. F. C. HARRISON.
R. J. DURLEY, Ma.E.
DR. H. S. BIRKETT.

THE GENERAL STAFF OFFICER, FOURTH DIVISION.
THE OFFICER COMMANDING THE McGILL UNIVERSITY CONTINGENT, C.O.T.C.

Committees.—*Continued.*

ADVISORY BOARD OF THE McGILL UNION.

ABNER KINGMAN, JR., ESQ., *Chairman.*

C. J. FLEET, ESQ.
DR. WLLIAM CALDWELL.
PROF. N. N. EVANS.
G. M. WILLISCROFT, President of the Union.
GEORGE C. MCDONALD, ESQ.
WALTER MOLSON, ESQ.

H. A. MELVILLE, *Secretary-Treasurer.*

MACDONALD COLLEGE COMMITTEE.

DR. F. C. HARRISON, *Chairman.*

J. W. ROSS, ESQ.
PRINCIPAL PETERSON.
W. VAUGHAN, ESQ., M.A.
PROF. WILLIAM LOCHHEAD.
PROF. J. A. DALE.

TEACHERS' TRAINING COMMITTEE OF MACDONALD COLLEGE.

(Meeting on the second Friday of October, December, February, April and June.)

PRINCIPAL PETERSON, *Chairman.*
DR. W. L. SHURTLEFF.
REV. DR. A. T. LOVE.
DR. G. W. PARMELEE.
PROF. J. A. DALE.
DR. F. C. HARRISON.
PROF. SINCLAIR LAIRD.
REV. DR. E. I. REXFORD.

J. A. NICHOLSON, *Secretary.*

ATHLETICS COMMITTEE OF CORPORATION.

C. J. FLEET, ESQ., *Chairman.*

DR. F. W. HARVEY, *Secretary.*
PROF. C. H. MCLEOD.
DR. H. T. BARNES.
DR. J. M. ELDER.
PERCIVAL MOLSON, ESQ., B.A.
W. VAUGHAN, ESQ., M.A.

COMMITTEE OF THE McGILL SCHOOL OF PHYSICAL EDUCATION.

Chairman:—PROFESSOR DALE.
Medical Director:—DR. F. W. HARVEY.
Physical Director:—ETHEL M. CARTWRIGHT.

PRINCIPAL PETERSON.
ETHEL HURLBATT, Warden, Royal Victoria College.
RUTH CLARK, Trafalgar Institute.
PROFESSOR J. C. SIMPSON.
DR. G. W. PARMELEE, Secretary of the Department of Public Instruction, Quebec.
MAJOR S. H. HILL, Organizer and Inspector of Cadet Corps, 4th and 5th Divisions.
C. B. POWTER, Supervisor of Physical Education, Protestant Board of School Commissioners, Montreal.
DR. F. J. TEES.
DR. A. T. BAZIN, Secretary of the Medical Board of the Montreal General Hospital.

Officers of Instruction.

FACULTY OF ARTS.

SIR W. PETERSON, M.A. (Edin. and Oxon.), K.C.M.G., LL.D., D.Litt.
Principal and Professor of Classics. 447 Sherbrooke St. W.

CHARLES E. MOYSE, B.A. (London), LL.D.
Vice-Principal and Dean of the Faculty of Arts, and Molson Professor of English Language and Literature. 324 Sherbrooke St. W

FRANK D. ADAMS, Ph.D. (Heidelberg), D.Sc., F.G.S.A., F.R.S.
Logan Professor of Geology and Palæontology. 243 Mountain St

C. W. COLBY, M.A. and Ph.D. (Harvard).
Kingsford Professor of History. 560 Pine Ave. W.

HERMANN WALTER, M.A. (Edin.), Ph.D. (Munich).
Professor of Modern Languages. 635 University St.

JAMES HARKNESS, M.A. (Cantab.), F.R.S.C.
Peter Redpath Professor of Pure Mathematics. 23 Lorne Ave.

WILLIAM CALDWELL, D.Sc. (Edin.).
Macdonald Professor of Moral Philosophy. 51 Shuter St.

JOHN MACNAUGHTON, M.A., LL.D. (Queen's).
Hiram Mills Professor of Classics. 769 University St.

PAUL T. LAFLEUR, M.A.
Professor of Comparative Literature and Associate Professor of English. 592 University St.

HOWARD T. BARNES, D.Sc., F.R.S.
Macdonald Professor of Physics and Director of the Physics Building. 239 Pine Avenue W.

J. A. DALE, M.A. (Oxon.)
Macdonald Professor of Education. 771 University St.

H. C. PERRIN, MUS. DOC. (Trinity Coll., Dublin University).
Professor of Music and Director of the McGill Conservatorium of Music. 856 Lorne Crescent.

STEPHEN LEACOCK, B.A. (Toronto), Ph.D. (Chicago).
Professor of Political Economy. 165 Côte des Neiges Road.

ARTHUR WILLEY, M.A., D.Sc., F.R.S.
Strathcona Professor of Zoology. McGill University.

C. A. BRODIE BROCKWELL, M.A.
Professor of Hebrew and Semitic Languages. Arts Building.

R. F. RUTTAN, B.A. (Toronto), M.D., D.Sc. (Toronto), F.R.S.C.
Macdonald Professor of Chemistry and Director of the Department of Chemistry. 660 Sherbrooke St. W.

FRANCIS E. LLOYD, M.A. (Princeton).
Macdonald Professor of Botany. Arts Building.

S. B. SLACK, M.A. (Oxon.)
Professor of Classics and Lecturer in Comparative Philology. Arts Building.

A. S. Eve, D.Sc.
Macdonald Professor of Physics.
490 Mountain Ave., Westmount.

J. Austen Bancroft, Ph.D.
Dawson Professor of Geology. 461 Grosvenor Ave., Westmount.

R. du Roure, Agrégé des lettres de l'Université de France.
Associate Professor of French. Arts Building.

Ethel Hurlbatt, M.A., T.C.D. (Somerville College, Oxford).
Warden of the Royal Victoria College and Resident Tutor in History. Royal Victoria College.

(*The above constitute the Faculty of Arts.*)

Other Officers of Instruction.

Carrie M. Derick, M.A.
Professor of Morphological Botany 85 Crescent St.

Nevil Norton Evans, M.A.Sc.
Associate Professor of Chemistry. 157 St. Famille St.

J. W. A. Hickson, M.A., Ph.D. (Halle).
Associate Professor of Logic and Metaphysics. 20 Ontario Ave.

J. C. Simpson, B.Sc.
Associate Professor of Histology and Embryology. 821 Lorne Crescent.

Herbert J. Rose, M.A. (Oxon.).
Associate Professor of Classics. 276 Pine Ave. W.

Charles Edmund Fryer, M.A., Ph.D. (Harvard).
Associate Professor of History. Arts Building.

J. C. Hemmeon, M.A., Ph.D. (Harvard).
Associate Professor of Economics. Arts Building.

F. M. G. Johnson, M.Sc., Ph.D. (Breslau), F.I.C.
Associate Professor of Physical Chemistry. 286 Peel St.

Alex. R. Gordon, M.A., D.Litt. (Aberdeen).
Professor of Hebrew. Presbyterian College.

J. L. Morin, M.A.
Assistant Professor of Modern Languages. 28 Ste. Famille St.

T. Ridler Davies, B.A. (Cantab.).
Assistant Professor of Mathematics. The Marlborough, Milton St.

Richard P. D. Graham, B.A. (Oxon.), M.Sc.
Assistant Professor of Mineralogy. Chemistry Building.

Susan E. Cameron, M.A.
Vice-Warden of the Royal Victoria College and Assistant Professor of English. Royal Victoria College.

Cyrus Macmillan, M.A., Ph.D. (Harvard).
Assistant Professor of English. The Marlborough, Milton St.

William D. Tait, B.A. (Dal.), M.A. and Ph.D. (Harvard).
Assistant Professor of Psychology. 441 Mance St.

V. J. Harding, D.Sc.
Assistant Professor of Biological and Physiological Chemistry. Old Medical Building.

C. T. Sullivan, Ph.D.
Assistant Professor of Mathematics. Engineering Building.

L. V. King, M.A. (Cantab.), D.Sc., F.R.S.C.
Assistant Professor of Physics. 24 Buckingham Ave.

V. K. Krieble, Ph.B. (Brown), Ph.D.
Assistant Professor of Chemistry. 124 Prince Arthur St. E.

E. T. Lambert, B.A. (Lond.).
Assistant Professor of Modern Languages,
456 Mountain Ave., Westmount.

J. Stafford, B.A. (Toronto), M.A., Ph.D. (Leipsic).
Lecturer in Zoology. McGill University.

Clara Lichtenstein.
(Diplomée of the Royal Academy of Music, Buda-Pesth.)
Vice-Director of the Conservatorium of Music and Resident Instructor in Music. Royal Victoria College.

G. M. N. Gréterin, Agrégée ès lettres de l'Université de France.
Lecturer and Resident Tutor in French (Royal Victoria College).
Royal Victoria College.

G. W. Latham, B.A.
Lecturer in English. Arts Building.

Alexander M. Thompson, Ph.D. (Harvard).
Lecturer in Classics. Arts Building.

Elizabeth A. Irwin, M.A.
Lecturer and Tutor in Classics (Royal Victoria College). 1053 Mount Royal Ave. W., Outremont.

John Stansfield, B.A. (Cantab.), M.Sc., F.G.S.
Lecturer in Geology. 371 Oxford Ave., Notre Dame de Grace.

J. A. Gray, D.Sc.
Lecturer in Physics. Physics Building.

G. S. Currie, B.A., C.A.
Lecturer in Accountancy, School of Commerce. 293 Peel St.

Iveson A. Miller, B.A., M.Sc.
Lecturer in Mathematics. Arts Building.

Harold J. Laski.
Lecturer in History. Arts Building.

S. L. Dale Harris, B.A., B.C.L.
Lecturer in Commercial Law, School of Commerce, 198 Milton St.

Rev. G. Abbott-Smith, M.A., D.D.
Sessional Lecturer in Jewish Hellenistic Literature.
Diocesan College.

L. Ida Couture, B.A.
Sessional Lecturer in German. 198 Berri St.

Nathaniel E. Wheeler, B.S. (Colby), M.Sc.
Lecturer in Physics. Physics Building.

Rev. Paul Villard, Ph.D.
Lecturer in French. 1095 Greene Ave., Westmount.

A. R. M. MacLean, M.Sc.
Lecturer in Chemistry. Chemistry Building.

HERSCHELL E. REILLEY, M.Sc.
Demonstrator in Physics. Physics Building.
EARLE R. EDSON, A.B. (Clark).
Demonstrator in Chemistry. Chemistry Building.
ARTHUR A. SCOTT, M.Sc.
Senior Demonstrator in Physics. Physics Building.
T. WEST, M.Sc.
Demonstrator in Physics. Physics Building.
VIOLET HENRY, B.A.
Demonstrator in Physics. Physics Building.
L. A. BROWNE, B.Sc.
Demonstrator in Chemistry. Chemistry Building.
M. J. MARSHALL, B.Sc.
Demonstrator in Chemistry. Chemistry Building.
H. S. REID, B.A.
Demonstrator in Chemistry. Chemistry Building.

GENERAL INSTRUCTORS.

GENERAL STAFF OFFICER, FOURTH DIVISION, CANADIAN MILITIA.
Lecturer in Military Subjects.
F. W. HARVEY, B.A., M.D.
Medical Director of Physical Education.
4007 Dorchester St., Westmount.
ARTHUR STANLEY LAMB, B.P.E.
Instructor in Gymnastics. New Medical Building.
MISS ETHEL M. CARTWRIGHT.
Physical Director, Royal Victoria College.
Royal Victoria College.

FACULTY OF APPLIED SCIENCE.

THE PRINCIPAL.

FRANK D. ADAMS, Ph.D. (Heidelberg), D.Sc., F.G.S.A., F.R.S.
Dean of the Faculty and Logan Professor of Geology and Palæontology. 243 Mountain St.
C. H. MCLEOD, Ma.E., F.R.S.C.
Vice-Dean of the Faculty, Professor of Geodesy, and Lecturer on Descriptive Geometry, Supt. of Observatory. The Observatory, McGill University.
J. BONSALL PORTER, E.M., Ph.D. (Columbia), D.Sc., hon. (Univ. Cape of Good Hope), M. Inst. C. E.
Macdonald Professor of Mining Engineering, and Director of the Mining Building. 130 McTavish.
ALFRED STANSFIELD, D.Sc. (London), A.R.S.M., F.R.S.C.
Birks Professor of Metallurgy. 87 Durocher St.
HOWARD T. BARNES, D.Sc., F.R.S.
Macdonald Professor of Physics and Director of the Physics Building. 239 Pine Ave. W.

D. A. MURRAY, Ph.D. (Johns Hopkins).
Professor of Applied Mathematics. 857 University St.

H. M. MACKAY, B.A., B.A.Sc., M. Am. Soc. C.E.
Professor of Civil Engineering. 15 Lorne Ave.

H. O. KEAY, B.Sc. (Mass. Inst. of Tech.).
Professor of Transportation. 245 Mance St.

L. A. HERDT, E.E. (Elec. Inst., Montefiore, Belgium), D.Sc., F.A.I.E.E., F.R.S.C., M. Can. Soc. C.E.
Macdonald Professor of Electrical Engineering.
43 Hampton Court Apartments.

E. BROWN, M.Sc., M. Eng.
Professor of Applied Mechanics and Hydraulics. 152 St. Famille St.

R. F. RUTTAN, B.A. (Toronto), M.D., D.Sc. (Toronto), F.R.S.C.
Macdonald Professor of Chemistry and Director of the Chemistry Building. 660 Sherbrooke St. W.

RAMSAY TRAQUAIR, A.R.I.B.A.
Macdonald Professor of Architecture. Engineering Building.

A. S. EVE, M.A. (Cantab.), D.Sc.
Macdonald Professor of Physics. 490 Mountain Ave., Westmount.

J. AUSTEN BANCROFT, M.A., Ph.D.
Dawson Professor of Geology. 461 Grosvenor Ave., Westmount.

A. R. ROEERTS, M.Sc.
Associate Professor of Mechanical Engineering.
Engineering Building.

C. M. MCKERGOW, M.Sc.
Associate Professor of Mechanical Engineering.
3 Burton Ave., Westmount.

(*The above Members of the Staff constitute the Faculty of Applied Science.*)

OTHER OFFICERS OF INSTRUCTION.

PERCY E. NOBBS, M.A. (Edin.), F.R.I.B.A., A.R.C.A.
(Absent on leave.)
Professor of Design. 38 Belvidere Road, Westmount.

R. J. DURLEY, Ma.E., M. Inst. C.E., M. Am. Soc. M.E.
Lecturer in Mechanical Engineering. 20 Summerhill Ave.

HENRY F. ARMSTRONG.
Associate Professor of Freehand Drawing and Descriptive Geometry. "The Belmont," 225 Sherbrooke St. W.

NEVIL NORTON EVANS, M.A.Sc.
Associate Professor of Chemistry. 157 St. Famille St.

THOMAS W. LUDLOW, B.Sc., M.A. (Columbia), Licentiate R.I.B.A.
Associate Professor of Architecture. 154 St. Famille St.

F. M. G. JOHNSON, M.Sc., Ph.D. (Breslau), F.I.C., F.R.S.C.
Associate Professor of Physical Chemistry.
Chemistry Building.

JOHN W. BELL, M.Sc.
Assistant Professor of Mining Engineering.
385 Grosvenor Ave., Westmount.

T. RIDLER DAVIES, B.A. (Cantab.).
Assistant Professor of Mathematics.
The Marlborough, Milton St.

CLARENCE V. CHRISTIE, B.Sc., M.A. (Dalhousie).
Assistant Professor of Electrical Engineering.
455 Grosvenor Ave., Westmount.

ALEXANDER M. GRAY, Wh.Sc. B.Sc. (Edin. and McGill).
Assistant Professor of Electrical Engineering.
Engineering Building.

CYRIL BATHO, B.Sc. (Manchester), B. Eng. and M.Sc. (Liverpool).
Assistant Professor of Mechanics and Applied Mathematics. Engineering Building.

RICHARD P. D. GRAHAM, B.A. (Oxon.), M.Sc.
Assistant Professor of Mineralogy. Chemistry Building.

HENRY M. LAMB, M.Sc.
Assistant Professor of Civil Engineering and Lecturer in Architecture. Engineering Building.

CHARLES T. SULLIVAN, B.A. (Dal.), M.Sc. (McGill), Ph.D. (Chicago).
Assistant Professor of Mathematics. Engineering Building.

V. J. HARDING, D.Sc.
Assistant Professor of Biological and Physiological Chemistry. Old Medical Building.

L. V. KING, M.A. (Cantab.), D.Sc., F.R.S.C.
Assistant Professor of Physics. 24 Buckingham Ave.

WM. C. WILLARD, C.E., M.Sc. (Lehigh).
Assistant Professor of Railway Engineering. 85 Mt. Royal Ave. W.

V. K. KRIEBLE, Ph.B. (Brown), Ph.D.
Assistant Professor of Chemistry. Chemistry Building.

E. F. LAWSON.
Lecturer on Freight Service. Engineering Building.

MARCEL BEULLAC, Bachelier ès Sciences (France), B.Sc., A.M. Can. Soc. C.E. (Absent on leave for session 1915-16).
Special Lecturer on Structural Engineering.
460 Mt. Stephen Ave., Westmount.

A. A. GOODCHILD.
Lecturer in Organization, Accounting and Statistics (Department of Railways). 551 Durocher St.

GEO. C. WELLS.
Lecturer on Passenger Service.
339 Côte St. Antoine Road, Westmount.

PHILIP J. TURNER, F.R.I.B.A.
Lecturer in Building Construction, Specifications and Professional Practice. 49 Beaver Hall Hill.

FREDERICK BAYLIS BROWN, M.Sc.
Lecturer in Engineering Economics.
261 Strathearn Ave., Montreal West.

JOHN STANSFIELD, B.A. (Cantab.), M.Sc., F.G.S.
Lecturer in Geology. 371 Oxford Ave., Notre Dame de Grace.

WALTER S. JOHNSON, B.A., B.C.L.
Lecturer in Engineering Law. 61 Trafalgar Ave.

IVESON A. MILLER, B.A., M.Sc.
Lecturer in Mathematics. Engineering Building.

R. DEL. FRENCH, A.M. Am. Soc. C.E., A.M. Can. Soc. C.E.
Lecturer in Civil and Municipal Engineering.
Engineering Building.

S. W. WERNER.
Lecturer in Metallurgy. Chemistry Building.

E. GODFREY BURR, B.Sc.
Lecturer in Electrical Engineering.
3 "The Abbotsford," Oldfield Ave.

ALBERT J. KELLY, B.Sc.
Lecturer in Surveying. Engineering Building.

J. A. GRAY, D.Sc.
Lecturer in Physics. Physics Building.

JOHN J. CREELMAN, B.A. (Toronto), B.C.L. (McGill)
(Absent on leave.)
Lecturer in Railway Economics. 13 Lorne Ave.

W. M. BAXTER, M.E. (Wisconsin).
Lecturer in Railway Operation. Engineering Building.

COLIN KEMP, B.Sc.
Lecturer in Mechanical Engineering. Engineering Building.

L. S. EATON.
Demonstrator in Mechanical Engineering. Engineering Building.

HENRI HÉBERT, A.R.C.A.
Instructor in Modelling. 34 Labelle St.

NATHANIEL E. WHEELER, M.Sc.
Senior Demonstrator in Physics. 253 Hutchison St.

JAMES WEIR, B.Sc.
Senior Demonstrator in Surveying. Engineering Building.

A. R. M. MACLEAN, B.A.
Demonstrator in Chemistry. Chemistry Building.

R. H. MATHER, B.Sc.
Senior Demonstrator in Electrical Engineering.
Engineering Building.

HERSCHELL E. REILLEY, M.Sc.
Demonstrator in Physics. Physics Building.

E. PEDEN.
Demonstrator in Civil Engineering. Engineering Building.

A. A. SCOTT, B.A.
Demonstrator in Physics. Physics Building.

L. A. BROWNE.
Demonstrator in Chemistry. Chemistry Building.

F. J. CRONK, B.Sc.
Demonstrator in Descriptive Geometry and Surveying.
Engineering Building.

EARLE R. EDSON, A.B. (Clark).
Demonstrator in Chemistry. Chemistry Building.

T. WEST, M.Sc.
Demonstrator in Physics. Physics Building.

H. S. REID, B.A.
Demonstrator in Chemistry. Chemistry Building.

M. J. MARSHALL, B.Sc.
Demonstrator in Chemistry. Chemistry Building.

VIOLET HENRY, B.A.
Demonstrator in Physics. 60 Arlington Ave., Westmount.

S. D. MACNAB.
Assistant in charge of Testing Laboratory. Engineering Building.

ROBERT GOLTMAN.
Instructor in Stenography. Engineering Building.

H. F. MILLER.
Instructor in Telegraphy.
96 Grand Boulevard Ave., Kensington, Notre Dame de Grace.

J. W. MCLEOD, B.Sc.
Douglas Research Fellow in Mining. Mining Building.

P. P. BAILY, B.Sc.
Harrington Research Fellow in Mining. Mining Building.

With the foregoing are associated:

S. B. LEACOCK, Ph.D.
Professor of Economics.

J. C. HEMMEON, Ph.D.
Associate Professor of Economics.

G. W. LATHAM, B.A.
Lecturer in English Language and Literature.

FACULTY OF LAW.

(Macdonald Foundation.)

THE PRINCIPAL.

ROBERT WARDEN LEE, M.A., B.C.L.
Dean of the Faculty and Professor of Roman Law.
The Travancore, Cedar Ave.

ARCHIBALD MCGOUN, M.A., B.C.L., K.C.
Professor of Civil and Municipal Law.
"Dunaven," 37 Bellevue Ave., Westmount.

W. DE M. MARLER, B.A., D.C.L.
Professor of Civil Law. 288 Peel St.

EUGÈNE LAFLEUR, B.A., D.C.L., K.C.
Professor of Public International Law. 314 Peel St.

HON. SIR CHARLES DAVIDSON, M.A., D.C.L., LL.D.
Professor of Criminal Law.
The Linton Apartments, Sherbrooke St.

R. C. SMITH, D.C.L., LL.D. (Brown), K.C.
Professor of Commercial Law. 692 Sherbrooke St. W.

HON. A. G. CROSS, B.A., B.C.L., Justice of King's Bench.
Professor of Commercial Law. 369 Metcalfe Ave., Westmount.

AIMÉ GEOFFRION, B.C.L., K.C.
Professor of Civil Law. 50 Durocher St.

GORDON W. MCDOUGALL, B.A., B.C.L., K.C.
Professor of Commercial and Private International Law. 68 Ontario Ave.

P. B. MIGNAULT, LL.D. (Laval), K.C.
Professor of Civil Law. 124 Crescent St.

(*The above Professors constitute the Faculty of Law.*)

OTHER OFFICERS OF INSTRUCTION.

HON. MR. JUSTICE R. A. E. GREENSHIELDS, B.A., B.C.L.
Associate Professor of Criminal Law. 53 Simpson St.

E. FABRE SURVEYER, B.A. (Laval), B.C.L., K.C.
Lecturer in Pleading and Practice. 128 Maplewood Ave., Outremont.

ARNOLD WAINWRIGHT, B.A., B.C.L., K.C.
Lecturer in the Law of Evidence and Persons. 4 Seaforth Ave.

E. EDWIN HOWARD, B.A., B.C.L., K.C.
Lecturer in Civil Procedure. 340 Mountain St.

WARWICK F. CHIPMAN, B.A., B.C.L.
Lecturer in Civil Law. 49 Lincoln Ave

FACULTY OF MEDICINE.

THE PRINCIPAL.

H. S. BIRKETT, M.D.
Dean of the Faculty and Professor of Oto-Laryngology. 252 Mountain St.

ALEX. D. BLACKADER, B.A., M.D.
Acting Dean of the Faculty and Professor of Pharmacology and Therapeutics, and of Pediatrics. 236 Mountain St.

R. F. RUTTAN, B.A. (Toronto), M.D., D.Sc. (Toronto), F.R.S.C.
Professor of Organic and Biological Chemistry. 660 Sherbrooke St. W.

J. GEORGE ADAMI, M.A., M.D. (Cantab. and McGill), Sc.D. (T.C.D.), LL.D. (Toronto and N.B.), F.R.S., F.R.S.S. (Edin. and Can.).
Strathcona Professor of Pathology and Director of Pathological Museum. 34 Macgregor St.

F. G. FINLEY, M.B. (London), M.D.
Professor of Medicine and Clinical Medicine. 273 Bishop St.

H. A. LAFLEUR, B.A., M.D.
Professor of Medicine and Clinical Medicine. 215 Peel St.

GEORGE E. ARMSTRONG, M.D., LL.D. (Queens), D.Sc. (Liverpool).
Professor of Surgery and Clinical Surgery. 320 Mountain St.

T. A. STARKEY, M.B. (Lond.), D.P.H. (Lond.), M.D.C.M. (ad eun., McGill), M.R.C.S. (Eng.), L.R.C.P. (Lond.), Fell. Royal San. Inst.
Strathcona Professor of Hygiene. 817 University St.

J. W. STIRLING, M.B. (Edin.), M.D.
Professor of Ophthalmology. 128 Stanley St.

C. F. MARTIN, B.A., M.D.
Professor of Medicine and Clinical Medicine.
"The Sherbrooke," Sherbrooke St.

ARTHUR WILLEY, D.Sc., F.R.S.
Strathcona Professor of Zoology. McGill University.

W. W. CHIPMAN, B.A., M.D. (Edin.), F.R.C.S. (Edin.).
Professor of Obstetrics and Gynæcology. 285 Mountain St.

J. ALEX. HUTCHISON, M.D., L.R.C.P. and S. (Edin.).
Professor of Surgery and Clinical Surgery. 354 Mackay St.

FRANCIS E. LLOYD, M.A. (Princeton).
Macdonald Professor of Botany. 225 Mance St.

A. CAMPBELL GEDDES, M.B., Ch.B., M.D. (Edin.).
Professor of Anatomy. 106 The Boulevard, Westmount

_____,
Joseph Morley Drake Professor of Physiology. Medical Building.

D. D. MACTAGGART, B.A.Sc., M.D.
Profesor of Medical Jurisprudence. 1075 Mount Royal Ave. W.

DAVID J. EVANS, M.D.
Associate Profesor of Obstetrics and Lecturer in Pediatrics. 603 Dorchester St. W.

(*The above Professors constitute the Faculty of Medicine.*)

OTHER OFFICERS OF INSTRUCTION.

T. J. W. BURGESS, M.D., F.R.S.C., Medical Superintendent, Protestant Hospital for Insane.
Professor of Mental Diseases. P.O. Box 2280, Special Bag.

ANDREW MACPHAIL, B.A., M.D.
Professor of the History of Medicine. 216 Peel St.

JOHN L. TODD, B.A., M.D., M.R.C.S. (Eng.), D.Sc. (Hon., Liverpool).
Associate Professor of Parasitology. New Medical Building.

J. C. SIMPSON, B.Sc.
Associate Professor of Histology and Embryology.
821 Lorne Crescent.

F. A. L. LOCKHART, M.B. (Edin.), M.D.
Associate Professor of Gynæcology. 38 Bishop St.

W. F. HAMILTON, M.D.
Associate Professor of Medicine and Clinical Medicine. 287 Mountain St.

LAWRENCE J. RHEA, B.Sc., M.D.
Associate Professor of Pathology. Montreal General Hospital.

HORST OERTEL.
Associate Professor of Pathology. Royal Victoria Hospital.

DR. SHEPHERD.

JOHN M. ELDER, B.A., M.D.
Assistant Professor of Surgery and Clinical Surgery.
4201 Sherbrooke St., Westmount.

A. E. GARROW, M.D.
Assistant Professor of Surgery and Clinical Surgery.
289 Mountain St.

J. W. SCANE, M.D.
Assistant Professor of Pharmacology. Medical Building.

H. M. LITTLE, B.A., M.D.
Assistant Professor of Obstetrics and Lecturer in Gynæcology. 161 Stanley St.

J. R. GOODALL, B.A., M.D., D.Sc.
Assistant Professor of Gynæcology and Lecturer in Obstetrics. 27 Bishop St.

J. A. HENDERSON, M.D.
Assistant Professor of Anatomy. 575 Roslyn Ave., Westmount.

V. J. HARDING, D.Sc.
Assistant Professor of Biological and Physiological Chemistry. Old Medical Building.

G. GORDON CAMPBELL, B.Sc., M.D.
Lecturer in Pediatrics and in Dermatology. 123 Crescent St.

V. K. KRIEBLE, Ph.D.
Assistant Professor of Chemistry. Chemistry Building.

JOHN MCCRAE, B.A., M.D. (Toronto), M.R.C.P. (Lond.).
Lecturer in Pathology and Clinical Medicine. 160 Metcalfe St.

A. A. ROBERTSON, B.A., M.D.
Lecturer in Physiology and Demonstrator in Clinical Medicine. 136 Mansfield St.

W. G. M. BYERS, M.D., D.Sc.
Lecturer in Ophthalmology. 346 Mountain St.

A. ARTHMAN BRUÈRE, M.D. (Edin.).
Lecturer in Clinical Medicine. 2145 Mance St.

WALTER M. FISK, M.D.
Lecturer in Histology. 98 Park Ave.

H. B. YATES, B.A. (Cantab.), M.D.
Lecturer in Bacteriology. 357 Peel St.

D. A. SHIRRES, M.D. (Aberdeen).
Lecturer in Clinical Neurology.
The Sherbrooke, 670 Sherbrooke St. W.

KENNETH CAMERON, B.A., M.D.
Lecturer in Clinical Surgery. Medical Building.

G. H. MATHEWSON, B.A., M.D.
Lecturer in Ophthalmology. 205 Birks' Building, Phillips Square.

E. W. ARCHIBALD, B.A., M.D.
Lecturer in Clinical Surgery. 160 Metcalfe St.

W. L. Barlow, B.A., M.D.
Lecturer in Clinical Surgery. 4769 Sherbrooke St., Westmount.

Maude E. Abbott, B.A., M.D. (Bishop's), M.D., Hon. (McGill), L.R.C.P. & S. (Edin.).
Lecturer in Pathology and Curator of the Medical Museum.
26 Durocher St.

A. E. Orr, M.D.
Lecturer in Anatomy. 540 Dorchester St. W.

T. P. Shaw, M.D.
Lecturer in Physiological Chemistry. 1022 Dorchester St. W.

H. D. Hamilton, M.A. (Bishop's), M.D., L.R.C.P. & S. (Edin.), L.F.P. & S. (Glasgow).
Lecturer in Laryngology and Rhinology.
Birks' Building, Phillips Square.

C. B. Keenan, M.D.
Lecturer in Clinical Surgery. 376 Mountain St.

J. L. D. Mason, B.A., M.D.
Lecturer in Pharmacy and Demonstrator in Pharmacology.
24 Park Ave.

A. T. Bazin, M.D.
Lecturer in Surgery, Clinical Surgery and Applied Anatomy. 4064 Dorchester St., Westmount.

David Patrick, M.D.
Lecturer in Gynæcology. 4174 St. Catherine St., Westmount.

F. M. Fry, B.A., M.D.
Lecturer in Pediatrics and Demonstrator in Clinical Medicine. 577 Dorchester St. W.

W. H. Jamieson, M.D.
Lecturer in Oto-Laryngology. 344 Mountain St.

Phillip Burnett, M.D.
Lecturer in Dermatology. 161 Stanley St.

A. Mackenzie Forbes, M.D.
Lecturer in Orthopædic Surgery. 485 Guy St.

William George Turner, B.A., M.D., M.R.C.S. (Eng.).
Lecturer in Orthopædic Surgery. 179 Drummond St.

R. P. Campbell, B.A., M.D.
Lecturer in Genito-urinary Surgery. 33 Bishop St.

William Hutchison, M.D.
Lecturer in Genito-urinary Surgery. 345 St. Catherine St. W.

H. R. D. Gray, B.A., M.D.
Lecturer in Obstetrics. 60 Beaver Hall Hill.

J. W. Duncan, M.D.
Lecturer in Obstetrics. "The Sherbrooke," Sherbrooke St.

H. C. Burgess, M.D.
Lecturer in Obstetrics and Gynæcology. 105 Union Ave.

A. H. Gordon, M.D.
Lecturer in Medicine and Clinical Medicine. 111 St. Famille St.

Colin K. Russel, B.A., M.D.
Lecturer in Neurology and in Clinical Neurology. 218 Bishop St.

S. Hanford McKee, B.A., M.D.
Lecturer in Bacteriology and Demonstrator in Ophthalmology. 158 Crescent St.

Robert H. Craig, M.D.
Lecturer in Rhinology and Laryngology. 510 Sherbrooke St. W.

J. C. Meakins, M.D.
Lecturer in Medicine, Clinical Medicine and Pathology and Director of the Department of Experimental Medicine. 392 Mountain St.

R. St. J. Macdonald, B.A., M.D., D.P.H.
Lecturer in Hygiene. New Medical Building.

C. A. Peters, M.D.
Lecturer in Medicine and Clinical Medicine. 370 Mountain St.

H. B. Cushing, B.A., M.D.
Lecturer in Medicine and Clinical Medicine. 577 Dorchester St. W.

E. M. von Eberts, M.D., M.R.C.S. (Eng.).
Lecturer in Surgery and Clinical Surgery. 219 Peel St.

F. W. Nagle, M.D.
Lecturer in Anæsthetics. 104 Sherbrooke St. W.

W. B. Howell, M.D.
Lecturer in Anæsthetics. 620 Grosvenor Ave., Westmount.

F. S. Jackson, M.D.
Lecturer in Biology. McGill University.

V. H. Mottram.
Lecturer in Physiology. Medical Building.

F. B. Jones, M.D., D.P.H.
Demonstrator in Hygiene. 98 Sherbrooke St. W.

C. F. Wylde, M.D.
Demonstrator in Clinical Medicine and Pediatrics. 101 Crescent St.

Charles K. P. Henry, M.D.
Demonstrator in Clinical Surgery. 4549 Sherbrooke St., Westmount.

A. R. Pennoyer, M.D.
Demonstrator in Clinical Surgery. 418 Mackay St.

F. T. Tooke, B.A., M.D.
Demonstrator in Ophthalmology. 368 Mountain St.

A. L. C. Gilday, B.A., M.D.
Demonstrator in Physiology. 402 Mackay St.

J. Appleton Nutter, B.A., M.D., F.A.C.S.
Demonstrator in Orthopœdic Surgery. 65 Drummond St.

W. H. P. Hill, M.D., M.R.C.S. (Eng.), L.R.C.P. (Lond.).
Demonstrator in Clinical Surgery. 409 Mackay St.

R. H. M. Hardisty, B.A., M.D.
Demonstrator in Clinical Chemistry and in Clinical Medicine. 154 Metcalfe St.

W. H. Smyth, B.A., M.D.
Demonstrator in Anatomy and Assistant Demonstrator in Clinical Surgery. 4822 Western Ave., Westmount.

Joseph Kaufmann, M.D.
Demonstrator in Pathology and Clinical Medicine and Assistant Curator of the Museum. 204 Mance St.

A. O. Freedman, M.D.
Assistant to the Professor of Anatomy. 255 Sherbrooke St. W.

Fraser B. Gurd, B.A., M.D.
Demonstrator in Bacteriology and Assistant Demonstrator in Clinical Surgery. 406 Mackay St.

E. J. Mullally, M.D.
Demonstrator in Pathology. 93 Union Ave.

F. E. McKenty, M.D., F.R.C.S. (London).
Demonstrator in Clinical Surgery and in Operative Surgery. 93 Union Ave.

J. G. Browne, B.A., M.D.
Demonstrator in Clinical Medicine. 294 Sherbrooke St. W.

J. D. Morgan, B.A. (Cantab.), M.D.
Demonstrator in Physiology. 127 Cedar Ave.

H. A. Sims, M.D.
Assistant Demonstrator in Clinical Medicine. 133 Durocher St.

J. Guy W. Johnson, M.A., M.D., F.R.C.S. (Edin.).
Assistant Demonstrator in Clinical Surgery.
5 Prince of Wales Terrace, Sherbrooke St. W.

F. S. Patch, B.A., M.D.
Demonstrator in Genito-urinary Surgery. 33 Bishop St.

H. S. Muckleston, M.A., M.D.
Demonstrator in Oto-Laryngology. 167 Stanley St.

E. Hamilton White, B.A., M.D.
Demonstrator in Oto-Laryngology. 589 Dorchester St. W.

J. T. Rogers, B.A., M.D.
Demonstrator in Oto-Laryngology. 80 Crescent St.

C. A. Porteous, M.D.
Demonstrator in Mental Diseases.
Protestant Hospital for the Insane, Verdun, Que.

J. Marshall, B.Sc.
Demonstrator in Chemistry. Chemistry Building.

H. S. Reid, B.A.
Demonstrator in Chemistry. Chemistry Building.

W. J. Patterson, B.A., M.D.
Demonstrator in Clinical Surgery and Orthopædics.
1825 Park Ave.

D. W. McKechnie, M.D.
Demonstrator in Clinical Medicine. 1798 Park Ave.

C. F. Moffatt, B.A., M.D.
Demonstrator in Clinical Medicine. 9 Durocher St.

A. H. MacCordick, M.D.
Demonstrator in Pathology and Bacteriology. Medical Building.

R. P. Cromarty.
Demonstrator in Physiology. Medical Building.

F. J. Tees, B.A., M.D.
Demonstrator in Clinical Surgery. 6 Bishop St.

George Shanks, M.D.
Demonstrator in Clinical Medicine. 65 Drummond St.

R. E. Powell, M.D.
Demonstrator in Genito-Urinary Surgery. 1363 Greene Ave.

F. A. C. Scrimger, B.A., M.D.
Demonstrator in Clinical Surgery. 69 McTavish St.

D. Grant Campbell, M.D.
Assistant Demonstrator in Clinical Medicine. 251 Prince Arthur St. W.

L. L. Reford, M.D.
Assistant Demonstrator in Pathology and Clinical Surgery. 275 Bishop St.

W. E. Enright, B.A., M.D.
Assistant Demonstrator in Pediatrics. 228 Church Ave., Verdun.

J. MacMillan, M.D.
Assistant Demonstrator of Ophthalmology. 167 Stanley St.

W. W. Francis, M.D.
Assistant Demonstrator in Clinical Medicine. Medical Building.

L. S. Foster, M.D
Assistant Demonstrator in Clinical Medicine, Pathology and Bacteriology. 82 Crescent St.

T. F. Cotton, B.A., M.D.
Assistant Demonstrator in Clinical Medicine. 214 Bishop St.

J. A. C. Tull, M.D.
Assistant Demonstrator in Clinical Medicine. 756 Sherbrooke St. W.

D. H. Ballon, B.A., M.D.
Assistant Demonstrator in Oto-Laryngology. 82 Crescent St.

G. S. Mundie, B.A., M.D.
Assistant Demonstrator of Clinical Medicine. 14 Bishop St.

Wesley Bourne, M.D.
Assistant Demonstrator in Pharmacology. 42 St. Mark St.

J. J. Ower, B.A., M.D.
Douglas Research Fellow in Pathology. Medical Building.

R. H. Malone, M.D.
Douglas Research Student in Pathology. Medical Building.

Dental Department.

A. W. Thornton, D.D.S.
Chairman of the Dental Executive and Professor of Crown and Bridge Work. 4499 Sherbrooke St., Westmount.

Fred. G. Henry, D.D.S.
Profesor of Dental Pathology, Dental Materia-Medica and Therapeutics. Corner Guy and St. Catherine Sts.

D. James Berwick, D.D.S.
Professor of Operative Dentistry. Bank of Toronto Building, cor. Guy and St. Catherine Sts.

James B. Morison, D.D.S.
Professor of Orthodontia. 14 Phillips Square.

George S. Cameron, D.D.S.
Professor of Prosthetic Dentistry. Birks' Building, Phillips Square.

F. H. A. Baxter, D.D.S.
Lecturer in Dental Histology and Dental Surgery. Lindsay Building, 518 St. Catherine St. W.

J. S. Dohan, D.D.S.
Lecturer in Crown and Bridge Work. 127 Stanley St.

W. L. Bond, B.A., B.C.L., K.C.
Lecturer in Dental Jurisprudence. 247 Bishop St.

A. Clifford Jack, L.D.S.
Lecturer in Dental Anatomy. 416 MacKay St.

FACULTY OF AGRICULTURE.

(Macdonald College.)

The Principal.

F. C. Harrison, D.Sc., F.R.S.C.
Principal and Professor of Bacteriology.

William Lochhead, B.A., M.Sc., F.A.A.S.
Professor of Biology.

Carleton J. Lynde, Ph.D.
Professor of Physics.

J. F. Snell, Ph.D.
Professor of Chemistry.

H. Barton, B.S.A.
Professor of Animal Husbandry.

T. G. Bunting, B.S.A.
Professor of Horticulture.

James Murray, B.S.A.
Professor of Cereal Husbandry.
(The above Professors constitute the Faculty of Agriculture.)

Other Officers of Instruction.

W. P. Fraser, M.A.
Assistant Professor of Biology.

George E. Emberley.
Lecturer in Agricultural Engineering and Manual Training.

M. A. Jull, B.S.A.
Manager and Lecturer in Poultry Department.

H. S. Hammond, B.S.A., F.C.S.
Lecturer in Chemistry.

Douglas MacFarlane,, Ph.D.
Lecturer in English and History.

J. Vanderleck, Bact. Ch.E.
Lecturer in Bacteriology.

R. Summerby, B.S.A.
Lecturer in Cereal Husbandry.

A. N. Shaw, M.Sc.
Lecturer in Physics.

A. H. MacLennan, B.S.A.
Lecturer in Horticulture.

A. R. Ness, B.S.A.
Lecturer in Animal Husbandry.

Miss Jenny Reid, N.D.D.
Instructor in Home Dairying.

P. I. Bryce.
Assistant in Biology.

L. C. Raymond, B.S.A.
Assistant in Cereal Husbandry.

W. Sadler, N.D.D.
Assistant in Bacteriology.

S. A. Bergey, B.S.A.
Assistant in Poultry.

A. C. Gorham, B.S.A.
Assistant in Horticulture.

Miss Jessie D. Gray, N.D.D.
Assistant Instructor in Home Dairying.

Employed under the Agricultural Instruction Act of 1913 (*Canada*):

P. A. Boving, Cand. Phil., Cand. Agr.,
In charge of Root Crop Investigation.

A. Savage, B.S.A., D.V.M.
Veterinarian.

A. A. McMillan, B.S.A.
In Charge of Sheep Husbandry.

E. M. Du Porte, B.S.A., M.Sc.
Assistant in Biology.

J. V. Dupré, A.C.G.I.
Assistant in Physics.

N. C. McFarlane, B.A.
Assistant in Chemistry.

A. E. MacLaurin, B.S.A.
Assistant in Animal Husbandry.

Miss Frederica Campbell.
Demonstrator to Homemakers' Clubs of Quebec.

SCHOOL FOR TEACHERS.

Sinclair Laird, M.A., B. Phil.
Head of the School for Teachers and Associate Professor of Education.

Abner W. Kneeland, M.A., B.C.L.
Professor of English.

Miss Lilian B. Robins, B.A.
Lecturer in Mathematics and in Classics.

Mlle H. Biéler.
Lecturer in French.

D. W. Hamilton, M.A., Ph.D.
Lecturer in Nature Study and Elementary Agriculture.

G. A. Stanton, L.R.A.M., A.R.C.M.
Instructor in Music.

John L. Dashwood.
Assistant in English.

Miss Wenefride Thompson.
Instructor in Drawing and in Household Art.

Miss Dorothy F. Richmond, M.G.T.I.
Instructor in Physical Training.

Miss J. A. Starnak.
Assistant in Manual Training.

SCHOOL OF HOUSEHOLD SCIENCE.

Miss Katherine A. Fisher.
Head of the School of Household Science.

Mrs. T. T. Rutter.
Instructor in Household Science.

Miss Anita E. Hill.
Instructor in Household Science.

Miss Alice M. Zollman.
Instructor in Household Art.

Miss Bessie M. Philp.
Instructor in Household Science.

Emeritus Professors.

(*Retaining their Rank and Titles, but retired from work.*)

HON. MR. JUSTICE MATTHEW HUTCHINSON, D.C.L.
Emeritus Professor in the Faculty of Law. Sherbrooke, Que.

HON. MR. JUSTICE J. EMERY ROBIDOUX, D.C.L., Officier de l'Instruction Publique, Chevalier de la Légion d'Honneur.
Emeritus Profesor in the Faculty of Law. 679 University St.

GILBERT P. GIRDWOOD, M.D.C.M., M.R.S.C. (England), F.I.C., F.C.S., F.R.S.C.
Emeritus Professor in the Faculty of Medicine.
615 University St.

J. CLARK MURRAY, LL.D., F.R.S.C.
Emeritus Profesor in the Faculty of Arts. 20 McTavish St.

DUNCAN MCEACHRAN, D.V.S., F.R.C.V.S., LL.D.
Emeritus Dean and Professor in the Faculty of Comparative Medicine and Veterinary Science.
Ormsby Grange, Ormstown, Que.

SIR THOMAS G. RODDICK, M.D., LL.D. (Edin. and Queen's), F.R.C.S. (Eng.).
Emeritus Dean and Professor of Surgery in the Faculty of Medicine. 705 Sherbrooke St. W.

WILLIAM GARDNER, M.D.
Emeritus Profesor of Gynæcology. 457 Sherbrooke St. W.

HON. CHARLES J. DOHERTY, K.C., D.C.L., LL.D.
Emeritus Professor of Civil, Commercial and International Law. Minister of Justice, Ottawa, Ont.

ACADEMICAL YEAR, 1915-1916.

SEPTEMBER, 1915.

1	Wednesday	
2	Thursday	
3	Friday	
4	Saturday	Royal Victoria College opened, 1899.
5	**SUNDAY**	
6	Monday	
7	Tuesday	
8	Wednesday	
9	Thursday	Finance Committee.
10	Friday	
11	Saturday	
12	**SUNDAY**	
13	Monday	Last day for receiving applications for the Matriculation Examination.
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	
18	Saturday	
19	**SUNDAY**	Strathcona Medical Buildings opened, 1901.
20	Monday	Meeting of Governors. Conservatorium of Music opens.
21	Tuesday	
22	Wednesday	Matriculation Examinations begin. Exhibition, Scholarship and Supplemental Examinations in Arts.
23	Thursday	
24	Friday	
25	Saturday	
26	**SUNDAY**	
27	Monday	
28	Tuesday	
29	Wednesday	
30	Thursday	

OCTOBER, 1915.

1	Friday	Special Registration day for new Students.
2	Saturday	Special Registration day for students previously enrolled. Meeting of Faculty of Medicine.
3	**SUNDAY**	
4	Monday	Lectures begin in Arts, Applied Science and Law. Meeting of Faculty of Applied Science. Opening address by the Principal at 4 p. m. in the R. V. C.
5	Tuesday	
6	Wednesday	Founder's Birthday. University Lecture.
7	Thursday	Physics Building Committee.
8	Friday	Meeting of Teachers' Training Committee.
9	Saturday	Interclass Sports.
10	**SUNDAY**	William Molson Hall opened, 1862.
11	Monday	Summer Essays in Applied Science to be sent in. Library Committee. Museum Committee.
12	Tuesday	
13	Wednesday	Regular Meeting of Corporation.
14	Thursday	Conservatorium of Music opened, 1904. Finance Committee.
15	Friday	University Sports.
16	Saturday	
17	**SUNDAY**	
18	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
19	Tuesday	
20	Wednesday	
21	Thursday	
22	Friday	
23	Saturday	
24	**SUNDAY**	
25	Monday	Meeting of Governors.
26	Tuesday	
27	Wednesday	
28	Thursday	
29	Friday	
30	Saturday	
31	**SUNDAY**	Redpath Library opened, 1893.

NOTE.—The University Library is closed on Thanksgiving Day.

NOVEMBER, 1915.

1	Monday	Meeting of Faculty of Applied Science.
2	Tuesday	
3	Wednesday	
4	Thursday	
5	Friday	Macdonald College opened, 1907.
6	Saturday	Meeting of Faculty of Medicine.
7	**SUNDAY**	
8	Monday	
9	Tuesday	
10	Wednesday	
11	Thursday	Finance Committee.
12	Friday	
13	Saturday	
14	**SUNDAY**	
15	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
16	Tuesday	
17	Wednesday	
18	Thursday	
19	Friday	
20	Saturday	
21	**SUNDAY**	
22	Monday	Meeting of Governors.
23	Tuesday	
24	Wednesday	
25	Thursday	
26	Friday	
27	Saturday	
28	**SUNDAY**	
29	Monday	
30	Tuesday	

DECEMBER, 1915.

1	Wednesday	Meeting of Academic Board.
2	Thursday	Physics Building Committee.
3	Friday	
4	Saturday	Meeting of Faculty of Medicine.
5	**SUNDAY**	
6	Monday	Meeting of Faculty of Applied Science. Museum Committee. Library Committee.
7	Tuesday	
8	Wednesday	Regular Meeting of Corporation.
9	Thursday	Finance Committee.
10	Friday	Meeting of Teachers' Training Committee. Lectures for first term in Arts end.
11	Saturday	
12	**SUNDAY**	
13	Monday	Christmas Examinations in Arts begin.
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	
18	Saturday	Last day of lectures in Law and Applied Science.
19	**SUNDAY**	
20	Monday	Chemistry and Mining Building opened, 1898. Engineering Building Committee. Chemistry and Mining Building Committee.
21	Tuesday	
22	Wednesday	
23	Thursday	
24	Friday	
25	Saturday	Christmas Day. Library closed.
26	**SUNDAY**	
27	Monday	
28	Tuesday	
29	Wednesday	
30	Thursday	
31	Friday	

JANUARY, 1916.

1	Saturday	
2	**SUNDAY**	
3	Monday	Meeting of Faculty of Applied Science.
4	Tuesday	Second Term opens in Faculties of Arts, Medicine and Law. Lectures resumed in Applied Science.
5	Wednesday	
6	Thursday	
7	Friday	
8	Saturday	
9	**SUNDAY**	
10	Monday	
11	Tuesday	
12	Wednesday	
13	Thursday	Finance Committee.
14	Friday	
15	Saturday	Lectures for first term in Applied Science end.
16	**SUNDAY**	
17	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
18	Tuesday	
19	Wednesday	First Term Examinations in Applied Science begin.
20	Thursday	
21	Friday	Second Term opens in Applied Science. Meeting of Faculty of Arts.
22	Saturday	
23	**SUNDAY**	
24	Monday	Meeting of Governors.
25	Tuesday	
26	Wednesday	
27	Thursday	
28	Friday	
29	Saturday	
30	**SUNDAY**	
31	Monday	

FEBRUARY, 1916.

1	Tuesday	
2	Wednesday	
3	Thursday	Physics Building Committee.
4	Friday	
5	Saturday	Meeting of Faculty of Medicine.
6	**SUNDAY**	
7	Monday	Meeting of Faculty of Applied Science. Museum Committee. Library Committee.
8	Tuesday	
9	Wednesday	Regular Meeting of Corporation.
10	Thursday	Finance Committee.
11	Friday	Meeting of Teachers' Training Committee.
12	Saturday	
13	**SUNDAY**	
14	Monday	
15	Tuesday	
16	Wednesday	
17	Thursday	
18	Friday	
19	Saturday	
20	**SUNDAY**	
21	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
22	Tuesday	
23	Wednesday	
24	Thursday	Physics and Engineering Buildings opened, 1893.
25	Friday	
26	Saturday	
27	**SUNDAY**	
28	Monday	Meeting of Governors.
29	Tuesday	

MARCH, 1916.

1	Wednesday	Meeting of Academic Board.
2	Thursday	
3	Friday	
4	Saturday	Meeting of Faculty of Medicine.
5	**SUNDAY**	
6	Monday	Meeting of Faculty of Applied Science.
7	Tuesday	
8	Wednesday	Ash Wednesday. No lectures.
9	Thursday	Finance Committee.
10	Friday	
11	Saturday	
12	**SUNDAY**	
13	Monday	
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	
18	Saturday	
19	**SUNDAY**	
20	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
21	Tuesday	
22	Wednesday	
23	Thursday	
24	Friday	
25	Saturday	
26	**SUNDAY**	
27	Monday	Meeting of Governors.
28	Tuesday	
29	Wednesday	
30	Thursday	
31	Friday	

APRIL, 1916.

1	Saturday	Meeting of Faculty of Medicine.
2	**SUNDAY**	
3	Monday	Meeting of Faculty of Applied Science.
4	Tuesday	
5	Wednesday	Macdonald Engineering Building burned, 1907.
6	Thursday	Physics Building Committee.
7	Friday	
8	Saturday	
9	**SUNDAY**	
10	Monday	Library Committee. Museum Committee.
11	Tuesday	Last day of Lectures in Arts and Applied Science.
12	Wednesday	Regular Meeting of Corporation.
13	Thursday	Finance Committee.
14	Friday	Meeting of Teachers' Training Committee. Last day of Lectures in Law.
15	Saturday	
16	**SUNDAY**	Medical Building burned, 1907.
17	Monday	Last day for receiving theses for higher degrees. Sessional Examinations in Arts and Applied Science begin. Engineering Building Committee. Chemistry and Mining Building Committee.
18	Tuesday	
19	Wednesday	
20	Thursday	
21	Friday	Good Friday. No Lectures. Library closed.
22	Saturday	
23	**SUNDAY**	Easter Sunday.
24	Monday	Meeting of Governors.
25	Tuesday	
26	Wednesday	
27	Thursday	New Engineering Building opened, 1909.
28	Friday	
29	Saturday	
30	**SUNDAY**	

MAY, 1916.

1	Monday	Meeting of Faculty of Applied Science.
2	Tuesday	
3	Wednesday	
4	Thursday	
5	Friday	
6	Saturday	Meeting of Faculty of Medicine.
7	**SUNDAY**	
8	Monday	
9	Tuesday	
10	Wednesday	
11	Thursday	Finance Committee.
12	Friday	Convocation for Conferring Degrees in Arts, Law and Applied Science.
13	Saturday	
14	**SUNDAY**	
15	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
16	Tuesday	
17	Wednesday	
18	Thursday	
19	Friday	
20	Saturday	
21	**SUNDAY**	
22	Monday	Meeting of Governors.
23	Tuesday	
24	Wednesday	Victoria Day.
25	Thursday	
26	Friday	
27	Saturday	
28	**SUNDAY**	
29	Monday	
30	Tuesday	
31	Wednesday	

JUNE, 1916.

1	Thursday	Graduate course in Medicine begins.
2	Friday	
3	Saturday	Meeting of Faculty of Medicine.
4	**SUNDAY**	
5	Monday	New Medical Building opened, 1911.
6	Tuesday	
7	Wednesday	
8	Thursday	Finance Committee. Physics Building Committee.
9	Friday	Meeting of Teachers' Training Committee.
10	Saturday	
11	**SUNDAY**	
12	Monday	Museum Committee. Library Committee.
13	Tuesday	
14	Wednesday	Regular Meeting of Corporation.
15	Thursday	
16	Friday	
17	Saturday	
18	**SUNDAY**	
19	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
20	Tuesday.	
21	Wednesday	
22	Thursday	
23	Friday	
24	Saturday	
25	**SUNDAY**	
26	Monday	Meeting of Governors.
27	Tuesday	
28	Wednesday	
29	Thursday	
30	Friday	

JULY, 1916.

1	Saturday	Dominion Day. Library closed.
2	**SUNDAY**	
3	Monday	
4	Tuesday	Gift of Molson and Law Properties by Sir Wm. Macdonald, 1911.
5	Wednesday	
6	Thursday	
7	Friday	
8	Saturday	
9	**SUNDAY**	
10	Monday	
11	Tuesday	
12	Wednesday	
13	Thursday	
14	Friday	
15	Saturday	
16	**SUNDAY**	
17	Monday	
18	Tuesday	
19	Wednesday	
20	Thursday	
21	Friday	
22	Saturday	
23	**SUNDAY**	
24	Monday	
25	Tuesday	
26	Wednesday	
27	Thursday	
28	Friday	
29	Saturday	
30	**SUNDAY**	
31	Monday	

AUGUST, 1916.

1	Tuesday	
2	Wednesday	
3	Thursday	
4	Friday	
5	Saturday	
6	**SUNDAY**	
7	Monday	
8	Tuesday	
9	Wednesday	
10	Thursday	
11	Friday	
12	Saturday	
13	**SUNDAY**	
14	Monday	
15	Tuesday	
16	Wednesday	Peter Redpath Museum opened, 1882.
17	Thursday	
18	Friday	
19	Saturday	
20	**SUNDAY**	
21	Monday	
22	Tuesday	
23	Wednesday	
24	Thursday	
25	Friday	
26	Saturday	
27	**SUNDAY**	
28	Monday	
29	Tuesday	
30	Wednesday	
31	Thursday	

MATRICULATION EXAMINATION TIME TABLE.

SEPTEMBER, 1915.

WEDNESDAY, SEPTEMBER 22ND.

Morning 9–11.—English Literature.
11–12.30.—Botany; Chemistry.
Afternoon 2.30–4.30.—English Composition.

THURSDAY, SEPTEMBER 23RD.

Morning 9–11.—Latin Authors; Arithmetic.*
11–12.30.—Physics; Physiography.
Afternoon 2.30–4.30.—Latin Composition and Sight; English Grammar.*

FRIDAY, SEPTEMBER 24TH

Morning 9–11.—Algebra, Part I.
11–1.—French Grammar; German Grammar.
Afternoon 2.30–4.30.—French Translation; German Translation.

MONDAY, SEPTEMBER 27TH.

Morning 9–11.—Geometry, Part I.
11–12.30.—Trigonometry.
Afternoon 2.30–4.30.—History.

TUESDAY, SEPTEMBER 28TH.

Morning 9–11.—Algebra, Part II; Greek Authors.
Afternoon 2.30–4.30.—Geometry, Part II; Greek Composition and Sight.

WEDNESDAY, SEPTEMBER 29TH.

Morning 9.00.—Geometrical Drawing.
Afternoon 2.30.—Freehand Drawing.

---

* For candidates intending to enter the Faculty of Agriculture or the Department of Music.

EXAMINATION TIME TABLE.—Faculty of Arts.

EXHIBITION, SCHOLARSHIP AND SUPPLEMENTAL EXAMINATIONS, SEPTEMBER, 1915.

DATE.	Hour.	Supp. to First Year Sessional.	Second Year Exhibitions.	Supp. to Second Year Sessional.	Scholarships (Third Year).	Supp. to Third Year Sessional.*
Wednesday....22	9	English Literature.	English Literature (Shakspere); History.	English Literature.	English Literature (Shakspere and Milton).	English Literature.
	2.30	English Composition and History.	English Literature (Milton, Johnson).	English Composition.	English Literature (Burke and Arnold).	English Composition.
Thursday.....23	9	Latin Books.	Latin Books.	Latin Books.	Latin Texts.	Latin Books.
	2.30	Latin Composition, Sight Translation and History.	Latin Composition, Sight Translation, and History.	Latin Composition, Sight Translation, History and Literature.	Latin Composition and Sight, and Roman History.	Latin Composition. Sight Translation, History and Literature.
Friday.....24	9	French.	French Texts.	French.	French Books.	French. Botany.
	2.30		German Texts.	Semitics.	French Composition and Sight.	German.
Monday.....27	9	Algebra.	Geometry (Major), Geometry and Trigonometry (Minor).	Algebra.	Animal Biology. Analytical Geometry.	Mathematics.
	2.30	Trigonometry.	French Composition and Sight.	Psychology.	German Books. Plant Biology. Logic.	Chemistry.
Tuesday.....28	9	Greek Books. German.	Greek Books, Algebra, (Minor), Algebra, Trigonometry and Theory of Equations (Major).	Greek Books. Logic. German.	Greek Texts. Physics. Psychology.	Greek Books.
	2.30	Greek Composition, Sight Translation, and History.	Greek Composition, Sight Translation, and History.	Greek Composition, Sight Translation, and History. Animal Biology.	Chemistry. Greek Composition, Sight and History. Economics.	Greek Composition, Sight Translation. History and Literature.
Wednesday....29	9	Physics.	German Composition and Sight.	Conics and Solid Geometry. Plant Biology.	Infinitesimal Calculus. German Comp. and Sight.	Political Economy.
	2.30	Geometry.	Physics.	Chemistry. History and Economics.	Economics. Modern History and English Composition. Philosophy (Berkeley).	Political Science.

*Periods for other subjects to be arranged at the time of the Examination.

EXAMINATION TIME TABLES.

Faculty of Arts.

Christmas Examinations, 1915.

Morning examinations commence at 9; afternoon examinations at 2.30.

	First Year	Second Year	Third & Fourth Years.
Monday, Dec. 13th. A.M.	Geometry.	English.	Geology.
" P.M.	Latin.	Logic.	History; Mathematics; German; Botany; Physics.
Tuesday, Dec. 14th. A.M.	French	Economics.	Economics; Latin; Chemistry; Hebrew; English.
" P.M.	English	Latin	Philosophy (Ethics); French.
Wednesday, Dec. 15th. A.M.	Physics.	Mathematics. Biology. Chemistry.	Political Science; Zoology.
" P.M.	Greek	French	Greek; Psychology; Mechanics.
Thursday Dec. 16th, A.M.	German.	Greek.	Philosophy (Theory of Knowledge); English.
" P.M.	History.	German.	Astronomy.
Friday Dec. 17th. A.M.	Trigonometry.	History. Psychology.	Education.
,, P.M.		Hebrew.	

EXAMINATION TIME TABLES.

Faculty of Arts.

SESSIONAL EXAMINATIONS, 1916.

Morning examinations commence at 9; afternoon examinations at 2.30.

Day and Date	First Year	Second Year.	Third & Fourth Years.
Monday, April 17th...A.M.		Hebrew.	English Composition.
" P.M.		Hebrew.	
Tuesday, April 18th..A.M.	Algebra.	English.	Geology; Sanskrit.
" P.M.	History.	English.	Geology; Sanskrit.
Wednesday, April 19th.A.M.	Latin.	Logic.	Hist.; Math.; German; Botany; Physics.
" P.M.	Latin.	Psychology.	Hist.; Math.; German; Botany; Physics.
Thursday, April 20th.A.M.	French.	Economics.	Econ.; Latin; Chem.; Hebrew; English (Courses 3B and 4B).
" P.M.	French.	History.	Econ.; Latin; Chem.; English (Courses 3B and 4B).
Friday, April 21st....A.M.	English.	Latin.	Philosophy (Ethics); French.
" P.M.	English.	Latin.	Philosophy (Ethics); French.
Monday, April 24th...A.M.	Physics.	Algebra; Chemistry.	Political Science; Zoology.
" P.M.	Trigonometry.	Spherical. Trigonometry; Botany; Chemistry.	Political Science; Zoology.
Tuesday, April 25th...A.M.	Greek.	French.	Greek; Psychology; Mechanics.
" P.M.	Greek.	French.	Greek; Psychology.
Wednesday, April 26th.A.M.	German.	Greek.	Philosophy (Theory of Knowledge); English (Courses 4A and 3A); Comparative Philology
" P.M.	German.	Greek.	Philosophy (Theory of Knowledge); English (Courses 4A and 3A); Comparative Philology.
Thursday, April 27th..A.M.		German.	Education.
" P.M.		German.	Education.

TIME TABLES OF LECTURES.

Faculty of Arts.

Hour.	First Year Men	First Year Women.	Second Year.	Third & Fourth Years.
Lectures at 9, omitting Friday	Mathematics.	English. (Comp., Mon.; Lit. Wed.)	French. German—Men (Fri.)	Sanskrit. Geology. (Mon., Wed., Thurs.)
Lectures at 10, omitting Tuesday.	Latin.	French.	Logic and Psychology. German—Men (Tues.)	History. Mathematics. German. Botany. Physics.
Lectures at 11, omitting Thursday.	French.	Latin.	Economics and History. German—Women. German—Men (Thurs.)	Economics. Latin. Chemistry. Hebrew. English. (Tues. & Wed., 3B; Mon. & Fri., 4B.) Eng. Comp., III(Thurs.)
Lectures at 12 omitting Wednesday	English. (Comp., Mon.: Lit., Fri.) History (Wed.)	Mathematics. History (Wed.)	Latin. German—Men. (Wed.)	Philosophy (Ethics). French. Eng. Comp., IV (Wed.)
Lectures at 2, omitting Wednesday	Physics. (Tues. & Thurs.)	German.	Mathematics. (Tues. Thurs. & Fri.) Zoology. (Mon. & Thurs.) Botany (Mon. & Thurs.) Chemistry.	Political Science. Zoology (Tues. & Fri.)
Lectures at 3, omitting Wednesday.	Greek.	Physics. (Tues. & Thurs.) Physical Education. (Mon. & Fri.)	English.	Greek. Psychology. Mechanics. (Mon. & Thurs.) Astronomy (Tues. & Fri.)
Lectures at 4, omitting Wednesday.	German.	Greek.	Greek.	Philosophy (Theory of Knowledge). English. (Tues. & Fri., 4A; Mon. & Thurs., 3A.) Comp. Philology. (Tues. & Thurs.)
Lectures at 5, omitting Wednesday.			Hebrew.	Roman Law. Education. Constitutional Law. (Tues. & Fri.)

Laboratory periods and hours for Honour classes will be arranged at the commencement of the session.

The hours for Physical Education for women students of the second, third and fourth years will be arranged by the department.

TIME TABLES OF LECTURES.

FACULTY OF LAW.

SESSION 1915-1916.

FIRST YEAR.

MONDAY, 4TH OCTOBER, 1915 TO 18TH DECEMBER, 1915 (11 WEEKS).

Hour	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. McGoun.	Prof. Geoffrion.	Prof. McGoun.	Prof. Geoffrion.	Prof. McGoun.
4.00	Prof. Marler.		Prof. Marler.		Prof. Marler.
5.00	Roman	Constitutional.	Roman.	Constitutional.	Roman

TUESDAY, 4TH JANUARY, TO THURSDAY, 20TH APRIL, 1916 (16 WEEKS).

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Mr. Surveyer.	Prof. Geoffrion.	Mr. Surveyer.	Prof. Geoffrion	Mr. Surveyer.
4.00	Prof. Sir Ch. Davidson.	Prof. Sir Ch. Davidson.	Prof. Sir Ch. Davidson. Roman.	Mr. Surveyer.	Roman.
5.00	Roman.	Constitutional.	Mr. Wainwright.	Constitutional.	Mr. Wainwright.

TIME TABLES OF LECTURES.

Faculty of Law.

SESSION 1915-1916.

SECOND AND THIRD YEARS.

Monday, 4th October, 1915 to 18th December, 1915 (11 weeks).

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. Mignault.	Mr. Chipman.	Prof. Mignault.	Mr. Chipman.	Mr. Chipman.
4.00	Prof. Sir Ch. Davidson	Prof. Sir Ch. Davidson.	Prof. Sir Ch. Davidson.	Prof. Cross.	Prof. Cross.
5.00	Prof. Macdougall.	Prof. Marler.	Prof. Macdougall.	Prof. Marler.	Mr. Howard.

Tuesday, 4th January, to Thursday, 20th April, 1916 (16 weeks).

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. Mignault.	Mr. Howard.	Prof. McGoun.	Mr. Howard.	Prof. McGoun.
4.00				Prof. Cross.	Prof. Cross.
5.00	Prof. Smith.	Mr. Wainwright.		Mr. Wainwright.	Prof. Smith.

Mr. Chipman will lecture at 8.30 on Saturday.

McGill University.

HISTORY AND CONSTITUTION.

Foundation and Early History.

McGill University owes its origin to a private endowment. It was founded by the Hon. James McGill, a leading merchant and public-spirited citizen of Montreal, who died in 1813. By his will, dated January 8th, 1811, he bequeathed his property of Burnside (consisting of 46 acres of land with the dwelling house and other buildings thereon) and a sum of £10,000 in money to found a college in a provincial university, the erection of which had already been provided for by the British Government. The four trustees appointed under his will were directed to convey the property of the bequest to the Royal Institution for the Advancement of Learning, a body which, in 1802, had been incorporated by the Legislature "for the establishment of free schools and the advancement of learning" in the Province of Quebec. The conditions upon which the property was to be transferred to the Royal Institution for the Advancement of Learning were, mainly, that that Institution should, within ten years after the testator's decease, erect and establish on his Burnside estate "a University or College, for the purposes of education and the advancement of learning in this Province," and that the college, or one of the colleges in the University, if established, should "be named and perpetually be known and distinguished by the appellation of McGill College." Owing to persistent opposition by the leaders of one section of the people to any system of governmental education and to the refusal by the Legislature to make the grants of land and money which had been promised, the proposed establishment of the provincial university by the British Government was abandoned.

In so far as the McGill College was concerned, however, the Royal Institution at once took action by applying for a Royal Charter. Such a charter was granted in 1821, and the Royal Institution prepared to take possession of the estate, but, owing to protracted litigation, this was not surrendered to them till 1829, when the work of teaching was begun in two faculties, Arts and Medicine. The record of the first thirty years of the University's existence is an unbroken tale of financial embarrassment and administrative difficulties. The charter was cumbrous and unwieldy, and unsuited to a small college in the circumstances of this country, and the University, with the exception of its medical faculty, became almost extinct. But after thirty years the citizens of Montreal awoke to the value of the institution which was struggling in their midst. Several gentlemen undertook the responsibility of its reorganization, and, in 1852, an amended charter was secured. The Governor-General of Canada for the time being, Sir Edmund Head, became interested in its fortunes, and in 1855, with the advent of a new Principal, an era of progress and prosperity began.

A course in Law was begun in connection with the Faculty of Arts, in 1848, and the department was established as a separate faculty in 1853. The Faculty of Applied Science was not regularly organized till 1878, but a course in Engineering, which was amplified into the Department of Practical Science in 1871, was given under the Faculty of Arts as far back as 1856. The Faculty of Agriculture was established in 1907.

Principal Dates in the History of the University.

First Charter obtained.—1821.
College opened.—1829.
Amended Charter secured.—1852.
William Molson Hall opened.—October 10th, 1862.
Peter Redpath Museum opened.—August 16th, 1882.
Physics and Engineering Buildings opened.—February 24th, 1893.
Redpath Library opened.—October 31st, 1893.
Chemistry and Mining Building opened.—December 20th, 1898.
Royal Victoria College opened.—September 4th, 1899.

Strathcona Medical Buildings opened.—September 19th, 1901.
Conservatorium of Music opened.—October 14th, 1904.
Macdonald Engineering Building burned.—April 5th, 1907.
Medical Building burned.—April 16th, 1907.
Macdonald College opened.—November 5th, 1907.
New Engineering Building opened.—April 27th, 1909.
New Medical Building opened.—June 5th, 1911.
Gift of Molson and Law properties (comprising about 25 acres), from Sir William C. Macdonald.—July 4th, 1911.

One million five hundred and fifty thousand dollars raised (chiefly from Montreal citizens) in aid of the funds of the University.—November 20-24, 1911.

Government of the University.

By the amended Charter "the Governors, Principal, and Fellows" of the University are constituted a body politic and corporate, with all the usual rights and privileges of corporate bodies. The supreme authority, however, is vested in the Crown, and is exercised by His Excellency the Governor-General of Canada, for the time being, as **Visitor**. This is a special and important feature of the constitution, for, while it gives the University an imperial character and removes it at once from any merely local or party influence, it secures the patronage of the head of the political system of the country.

The **Governors** of the University are the members of the Royal Institution for the Advancement of Learning, above mentioned, and in them are vested the management of finances, the passing of University statutes and ordinances, the appointment of professors, and other important duties. Their number is limited to twenty-five, and vacancies are filled by the nomination of the remaining members, with the approval of the Visitor. The President of the Board of Governors is, *ex-officio,* Chancellor of the University.

The **Principal** is the academic head and chief administrative officer. He is appointed by the Board of Governors (of which body he is a member, *ex-officio*). He also holds the office of Vice-Chancellor of the University.

The **Fellows** (42 in number) are selected with reference to the representation of all the faculties and departments of

the University, and of the graduates, affiliated colleges, and other bodies.

The Governors, Principal and Fellows together, constitute the **Corporation**, the highest academical body. Its powers are fixed by statute, and include the framing of all regulations touching courses of study, matriculation, graduation, discipline and the granting of degrees.

The administration of these regulations, along with direct responsibility for the conduct of the educational work of the University, is entrusted to the several **Faculties**,—Arts, Medicine, Law, Applied Science, and Agriculture.

The Principal, the Deans of the several Faculties, the Professors and Associate Professors, and other members, not exceeding ten in number, of the teaching staff, constitute the **Academic Board** of the University, with the duty of considering such matters as pertain to the interests of the University as a whole, and of making recommendations concerning the same.

INCORPORATED AND AFFILIATED COLLEGES.

Incorporated Colleges.

Macdonald College.—This is an incorporated college of the university, situated at Ste. Anne de Bellevue, about twenty miles from Montreal. It consists of three departments:—The School of Agriculture, the School of Household Science, and the School for Teachers. Courses leading to the Bachelor's and Master's degrees in agriculture are under the control of the Corporation of McGill University; all the short term courses in agriculture, as well as the courses in domestic science, are under the direction of the Macdonald College Committee; and those for diplomas to teach in the Province of Quebec are subject to the immediate supervision of the Teachers' Training Committee. Further information is given on page 365, and full details as to the college buildings, courses, terms of admission, fees, etc., will be found in the Macdonald College Announcement, which will be sent on application to the Principal, Macdonald College, Que.

The Royal Victoria College is the women's college of McGill University and incorporated therein. The instruction for the first two years in Arts (except in the case of laboratory work), is given wholly in the college building. For further particulars, see page 359.

The McGill University College of British Columbia.—This is a branch of the University in British Columbia, with two teaching centres. In the main college at Vancouver courses are conducted up to the end of the third year in the Faculty of Arts and of the second year in the Faculty of Applied Science. In the branch at Victoria students are able to complete the work of the first two years in Arts. Detailed information is given in the College Bulletin, which may be had on application to the Registrar, McGill University College of British Columbia, Vancouver, B.C.

Affiliated Colleges.

Mount Allison, Acadia and Alberta Universities and the University of St. Francois Xavier College are affiliated to McGill University to the extent that students who have completed the two-year course in Engineering given by these universities are admitted directly to the third year in the courses of civil engineering, mining engineering, railway transportation, metallurgical engineering, chemical engineering, mechanical engineering, and electrical engineering of the Faculty of Applied Science of McGill University.

Students from these universities entering the third year of any of the first three of these courses must take the summer school in surveying, which opens at Montreal, in 1915, on September 6th; those entering the third year in Metallurgical Engineering or Chemical Engineering will take the summer school in chemistry.

Students from these universities entering the courses in Mechanical or Electrical Engineering are advised to take the summer school in mechanical drawing, physics and shopwork, which opens at McGill University on September 6th, but they are not required to do so.

Alberta University is also affiliated in the Faculty of Medicine, students who have completed the third year in the Medical course there being admitted directly to the fourth year in the Faculty of Medicine of this University.

Royal Military College.—Graduates of the Royal Military College of Kingston are admitted to the third year in the several departments of the Faculty of Applied Science above mentioned. They must in all cases take the respective summer schools pertaining to these several courses, which summer schools open at Montreal, in 1915, on September 6th.

Affiliated Theological Colleges.

The Theological Colleges named below are affiliated to the University under the following arrangements:—Students in these institutions who are pursuing a double course in Arts and Theology (six years at least) will be exempted from a half course in Arts in each of the third and fourth years or a whole course in either.

The Congregational College of Canada, Montreal.—Principal, Rev. E. M. Hill, D.D., 58 McTavish St.

The Diocesan College of Montreal.—Principal, Rev. E. I Rexford, M.A., LL.D., 743 University St.

The Presbyterian College, Montreal, in connection with the Presbyterian Church in Canada.—Principal, Rev. John Scrimger, M.A., D.D., 67 McTavish St.

The Wesleyan College of Montreal.—Principal, Rev. James Smyth, LL.D., 760 University St.

A movement was inaugurated in the session 1912-13 for a large measure of co-operation among the above Colleges, with the result that a considerable portion of the work which has hitherto been done separately by each is now taken in joint classes. For Calendars and all necessary information, apply to the Principals of the several Colleges, or to the Rev. Professor D. J. Fraser, 67 McTavish street.

Affiliation to Other Universities.

The University is affiliated to the universities of Oxford, Cambridge and Dublin, under conditions which allow an undergraduate who has taken two years' work, and has passed the second year sessional examination in Arts, to pursue his studies and take his degree at any of these universities on a reduced period of residence.

FACULTIES AND COURSES.

The educational work of the University is carried on in McGill College, the Royal Victoria College for Women, and other University buildings in Montreal; and also in Macdonald College at Ste. Anne de Bellevue.

COURSES FOR DEGREES AND DIPLOMAS.

The several courses offered by the University are as follows:—

In the Faculty of Arts.

For the degree of Bachelor of Arts.
" " " " Bachelor of Science.
" " Diploma of Commerce.

The undergraduate courses of study which lead to the degree of B.A. or of B.Sc., extend over four sessions of about seven and a half months each. In the second, third and fourth years extensive options are provided, and certain exemptions are also allowed to professional students. (See also page 97.)

It is in contemplation to establish a course leading to a new degree, Bachelor of Science in Agriculture, the first two years to be taken in the Faculty of Arts and the last two in the Faculty of Agriculture, but the details of this course have not yet been arranged.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine, in seven years, or with that in Applied Science, in six years. (See pages 97 and 99.)

The degrees of B.A. and B.C.L. can be obtained in six years and, under special circumstances, in five years. (See page 100.)

Full particulars regarding the course for the Diploma of Commerce are given on page 159.

The courses in Arts are open to women (who are educated mainly in separate classes) on equal terms with men. Residential accommodation for women students is provided in the Royal Victoria College. (For further particulars, see page 359.)

Holders of the degree of B.A. from this University are admitted to the study of the learned professions, without preliminary examination, in the different Provinces of Canada, and in Great Britain and Ireland, and elsewhere. They will also be granted Academy diplomas to teach in the Province of Quebec, provided they have passed an examination in pedagogy and have taught, under supervision, for the time required by law.

In the Faculty of Applied Science.

For the degree of Bachelor of Architecture (B. Arch.)

For the degree of Bachelor of Science (B.Sc.), in the departments of chemistry, chemical engineering, civil engineering, electrical engineering, mechanical engineering, metallurgy, metallurgical engineering, mining engineering, and railway transportation.

The undergraduate courses of study for the degree of B.Sc. extend over four sessions, averaging (with summer sessions) about eight months each, and provide a thorough professional training in the departments mentioned above. For the degree of B. Arch. the course is one of five years. Full particulars are given on pages 166 to 264.

The undergraduate course in Arts can be taken along with the undergraduate course in Applied Science in six years. (See page 97.)

In the Faculty of Law.

For the degree of Bachelor of Civil Law (B.C.L.)

The undergraduate course extends over three sessions of eight months each, and leads to the degree of Bachelor of Civil Law (B.C.L.)

The undergraduate course in Arts can be taken along with the undergraduate course in Law in six years and, under

special circumstances, in five years. (For full information regarding the Faculty of Law, see page 265.)

In the Faculty of Medicine.

For the degree of Doctor of Medicine and Master of Surgery (M.D., C.M.)

For the degree of Doctor in Dental Science (D.D.S.)

For the diploma of Public Health.

The undergraduate course of study leading to the degree of M.D., C.M., extends over five sessions of eight months each, and that leading to the degree of Doctor in Dental Science extends over four sessions of the same length. For further information, see page 283.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine in seven years. (See page 99.)

The course in Public Health and Sanitary Science is open to those only who have graduated in Medicine, or who possess some other qualification for practice. Generally speaking, it occupies a period of three months.

In the Graduate School.

For the degrees of Master of Arts, Master of Science and Doctor of Philosophy.

Full information as to admission and departments in which studies are offered will be found on page 349, and can also be obtained from the chairman or secretary of the Committee on Graduate Studies, to which Committee are also submitted all applications for the degrees of D.Sc. and D. Litt. These degrees are granted only on their recommendation. The chairman of the Committee is Professor James Harkness, and the secretary, Dr. C. J. MacMillan.

In Macdonald College.

For the degree of Bachelor of Science in Agriculture.

Other courses in the School of Agriculture.

Courses in the School of Household Science.

The several courses for teachers' diplomas.

The course of study for the degree of Bachelor of Science in Agriculture extends over four sessions of about eight months each. It aims to provide a thorough theoretical and practical training in the several branches of the science. (See also page 365.)

The Macdonald College announcement, containing full details as to buildings, courses, terms of admission, fees, etc., can be obtained from the Principal, Macdonald College P. O., Que.

In the Conservatorium of Music.

For the degrees of Bachelor of Music (Mus. Bac.) and Doctor of Music (Mus. Doc.).

For the diploma of Licentiate in Music, and the several Grade examination certificates.

Students are admitted as *Regular Students* taking an organized course leading to the diploma of Licentiate in Music or the degree of Bachelor of Music (see page 335), or as *Partial Students,* who, under certain conditions and after examination, can obtain certificates bearing the imprimatur of the University. Full details can be obtained on application to the Secretary of the McGill Conservatorium of Music, 323 Sherbrooke street west, Montreal.

The Course for the First Class Academy Diploma of the Province of Quebec.

Certain courses are given by the Department of Education, which when supplemented by practice teaching and observation (except in the case of holders of the Model Diploma) lead to a First Class Academy diploma on graduation. (See page 164.)

The Course in Military Science.

This course can be taken by undergraduates in Arts, Applied Science and Law. Particulars are given on page 344.

Extension Courses.

Evening lectures on a variety of subjects. Particulars will be given by circular about the commencement of the session.

DEGREES.

I. ORDINARY DEGREES.

The degrees conferred by the University are as follows:—B.A., B.Sc., B. Arch., B.C.L., B.S.A., Mus. Bac., M.D., C.M., D.D.S., D.C.L., Mus. Doc., M.A., M.Sc., Ph.D., D.Sc., D. Litt., and LL.D. (Honorary).

In order to obtain the degrees of B.A.; B.Sc.; B. Arch.; B.C.L.; B.S.A.; M.D., C.M.; and D.D.S., students are required to attend lectures (for length of courses, see pages 8 to 10), to complete the course of study for the degree sought, to pass all the prescribed examinations during the course, and any special examinations for graduation, and to perform such other exercises as may be prescribed to that end.

The requirements for degrees in Music are stated on page 335.

II. HIGHER DEGREES.

All theses for higher degrees, in order to be accepted, must be sent to the chairman of the Committee on Graduate Studies before April 17th, 1916. The examination will be held in April. No thesis will be received, or examination granted, until the fee for the degree has been paid.

Degree of M.A.

For requirements, see under "Graduate School," page 350.

Degree of M.Sc.

For requirements, see under "Graduate School," page 351.

Degree of D.Litt.

Candidates for the degree of Doctor of Literature must be Masters of Arts, and graduates of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of literature or philo-

sophy. They are required to present a satisfactory thesis or published work.

Degree of D.Sc.

Candidates for the degree of Doctor of Science must be Masters of Arts, or Masters of Science, or Doctors of Medicine, and graduates of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of science. They are required to present a satisfactory thesis or published work.

Degree of Ph.D.

For requirements, see under "Graduate School," page 352.

Degree of D.C.L.

Candidates for the degree of Doctor of Civil Law must be Bachelors of Civil Law of at least twelve years' standing. They are required to pass a special examination for the degree and to present a satisfactory thesis or published work on some subject selected or approved by the Faculty of Law. For details of the examination, etc., see page 278.

Degree of LL.D.

The degree of Doctor of Laws is given only as an honorary degree.

III. ADMISSION "AD EUNDEM GRADUM."

The following are the regulations applicable to admission *ad eundem gradum*:—

Extract from the Statutes, Chap. VIII.

"Graduates of other universities desirous of admission to "the like degree in this University, may be so admitted by "the Corporation; due enquiry being first made as to their "moral character and sound learning, and opportunity given "to the several Faculties, or the Committee on Graduate "Studies, as may be required, to make such representation in

"the premises as they may see fit. Provided always that, "except in the case of candidates proceeding to a higher "degree, such application for admission shall not be put to "vote until after three months' notice, unless by unanimous "consent, and shall not be ordered, if as many as five mem- "bers of the Corporation shall vote against it."

Extracts from the Regulations of the Corporation.

"In all cases in which anyone is proposed for an *ad eundem* "degree, it shall be necessary for the member or members of "the Corporation making such proposal, to state in writing "therewith the grounds upon which the granting of such "degree is advocated, and when the case shall be referred to "the Faculties, under Chap. VIII. of the Statutes, copies of "such proposal and grounds shall be transmitted to the Facul- "ties by the Registrar for their consideration."

Note. In considering applications under the above regulations, the Faculties will require as "grounds" the pursuit of a course of study or research in this University; association with the academic work of the University; or similar qualifications.

Admission "ad eundem gradum" is not granted merely as a titular distinction.

"The degree of Bachelor of Arts or Bachelor of Science, "*ad eundem,* shall be granted only to candidates who are "proceeding to a higher degree, the lower degree being "granted only when the candidate has qualified for the "higher."

"Graduates of other universities desiring an *ad eundem* "degree of this University, as a condition of entering on a "course of study leading to a higher degree, shall make appli- "cation to the Committee on Graduate Studies, who shall "thereupon report their recommendation to Corporation, "which body shall immediately take action without previous "reference to the various Faculties."

ENTRANCE REQUIREMENTS.

All matters regarding matriculation are under the control of a Matriculation Board, which is constituted as follows:

(a) The Heads of all Departments which may include matriculation subjects, *ex-officio*.

(b) The Deans of the several Faculties and the Registrar of the Faculty of Medicine.

(c) Such other members of the teaching staff (or others) as may be appointed annually by Corporation, the Faculty of Arts being given the power, in any emergency, to make an appointment, *pro tempore*.

I. REGULATIONS.

1. Matriculation examinations (for entrance into all Faculties) are held only in June and September—in June at McGill College and at the local centres named on page 16; in September, at McGill College and at Vancouver and Victoria only.

ALL INQUIRIES RELATING TO THE EXAMINATIONS SHOULD BE ADDRESSED TO THE REGISTRAR OF THE UNIVERSITY.

For the convenience of candidates in Great Britain, who are not otherwise qualified for entrance, an examination will be held regularly in London, Eng., each year, commencing on or about the 12th of June. Full information regarding the exact date of the examination, fee, etc., may be obtained from the Honorary Representative of the University, W. A. Evans, Esq., M.A., Secretary Headmasters' Conference, 12 King's Bench Walk, Temple, London, E.C.

2. Every candidate for examination is required to fill up an application form and return the same with the necessary

fee (for which see page 20) one month before the examination begins. Blank forms may be obtained from the Registrar.

No applications for examination in June will be received after May 20th.

3. Examinations will be held in June at the following centres, outside of the Province of Quebec, if a sufficient number of candidates apply:—Sydney, N.S.; Truro, N.S.; Rothesay, N.B.; Ottawa, Ont.; Brockville, Ont.; Peterborough, Ont.; North Bay, Ont.; Port Hope, Ont.; Toronto, Ont.; Hamilton, Ont.; St. Catharines, Ont.; Goderich, Ont.; Sault Ste. Marie, Ont.; Port Arthur, Ont.; Winnipeg, Man.; Regina, Sask.; Calgary, Alta.; Yale, B.C.; Summerland, B.C.; Vancouver, B.C.; Victoria, B.C.; Kingston, Jamaica, and London, Eng.

Candidates who are not within easy reach of any of the above centres are advised to prepare for entrance by taking an examination recognized by the University, as shown on pages 18 and 19. In centres where not more than four candidates are writing the fee for each will be determined by the Registrar.

4. The matriculation examination may be taken in two parts, but in order to be valid for entrance it must be completed within two years from the date of the first attempt. Credit with not be given for less than four papers passed at one time*, except in the case of those who are not required to take as many as four papers to complete the examination; nor will credit be given for less than four papers on certificates which may be presented for exemption from the matriculation examination, and no certificate will be accepted which has been obtained under easier conditions than those which are imposed on candidates who are attempting to qualify for entrance by taking the regular University examination.

---

* The June and September Examinations of the same year will be considered as "one time."

5. Candidates will not be considered as having passed in any subject unless they obtain at least 50 per cent. of the maximum marks in that subject (in subjects in which two papers are set, 50 per cent. on the two and not less than 40 in either, and this only when the two papers are taken at the same examination).

This regulation applies also in the case of certificates.

6. Candidates for admission to the Faculties of Arts, Applied Science, Law, Agriculture and the Department of Music who have failed to complete the matriculation requirements will be allowed to enter the first year as conditioned undergraduates, provided (a) that they have not failed in more than two papers (which in the Faculty of Applied Science cannot both be in the mathematical section) and (b) that they have obtained at least 25 per cent. in the subjects in which they have failed and 50 per cent. of the aggregate.

This regulation applies also to candidates who seek to satisfy the matriculation requirements by means of certificates granted by other recognized examining bodies.

In order to be admitted to the Faculty of Medicine, a candidate must pass in every subject required.

Students conditioned in a language must attend a special tutorial class during their first session, for which a fee of $10.00 is exigible. Any student so conditioned who fails to attend this class with regularity will not be allowed to present himself for examination.

7. Matriculation certificates will be issued to candidates who have passed the entrance examination conducted by the University, but not to those who have qualified by means of certificates, except when the greater part of the requirements have been satisfied by passing the University examination.

8. The certificates and diplomas named below will, if submitted to the Registrar, be accepted *pro tanto* in lieu of the matriculation examination, *i.e.*, in so far as the subjects and standard of the examination taken to obtain them are, to the satisfaction of the Matriculation Board, equivalent to those required for the matriculation examination of this University.

Candidates offering certificates which are not a full equivalent will be required to pass the matriculation examination in such of the necessary subjects as are not covered thereby.

Intending students who wish to enter by certificates should under no circumstances come to the University without having first obtained from the Registrar a statement of the value of the certificates they hold, as many of these may lack one or more essential subjects, or the work done in a subject may not be adequate, or again, the percentage gained may not be sufficiently high (see regulation 5). Moreover, it must be remembered that a certificate may admit to one Faculty and not to another. When a diploma or certificate does not show the marks obtained in the several subjects of the examination, it must be accompanied by an official statement containing this information.

Province of Quebec.

The University School Leaving certificate.
The Model School diploma.

Province of Ontario.

Certificates of admission to the Normal School and to the Faculty of Education.
Junior and Senior Matriculation certificates.

Province of New Brunswick.

First Class, Superior and Grammar School licences.
Grade XI and XII certificates.

Province of Nova Scotia.

The leaving certificates of Grades XI and XII.

Province of Prince Edward Island.

First Class Teachers' licences.
Second and Third Year certificates of Prince of Wales College.

Province of British Columbia.

Intermediate and Senior Grade certificates.

Province of Manitoba.

First and Second Class Teachers' certificates.

Provinces of Alberta and Saskatchewan.

The Departmental examination certificates for Standards XI and XII.

Newfoundland.

Associate Grade certificates.

United States.

Certificates granted by the College Entrance Examination Boards, and by the New York State Board of Regents.

Great Britain.

The holder of a Higher Certificate or a School Certificate of the Oxford and Cambridge Schools Examination Board, of the Senior Certificate of the Oxford or Cambridge Board of Examiners, of a First Class Certificate of the College of Preceptors or of a Higher Examination Certificate of the Scotch and Welsh Education Departments is entitled to exemption from the matriculation examination, *pro tanto,* if the candidate has at one and the same examination passed in certain specified subjects.

Applications for exemption from the matriculation examination, based upon certificates of having passed examinations other than those above mentioned, will be considered as occasion may require by the Matriculation Board. Every such application must be accompanied by certificates and full particulars, and should be addressed to the Registrar.

II. MATRICULATION EXAMINATION FEES.

Junior Matriculation.

For the first examination*..... $5.00
(For examination at a local centre where not more than four candidates are writing the fee will be determined by the Registrar.)

For a subsequent examination in one or two subjects 2.00

For a subsequent examination in three or more subjects 3.00

For examination of certificates, in respect of which candidates are exempted from the whole of the matriculation examination 1.00

Senior Matriculation.

For the first examination..... $10.00

For a subsequent examination, per subject..... 2.00

Matriculation examination fees must be sent to the University Registrar at the time of application for the examination. No application will be accepted unless accompanied by the regular fee.

Certificates will be issued to successful candidates without additional fee.

---

* In the case of candidates who qualify on certificates, or by other examinations in all but three subjects or less, the fee will be $3.00.

III. SUBJECTS OF EXAMINATION.

FACULTY OF ARTS.

Junior Matriculation.

(Admission to First Year.)

For candidates intending to take the B.A. course.

1. **English** (two papers).
2. **History** (one paper).
3. **Latin** *or* **Greek** (two papers).
4. One of the following (two papers in each):—
   Greek *or* **Latin** (the one not already chosen),
   French, German.
5. **Algebra, Part I** and **Arithmetic** (one paper).
6. **Geometry, Part I** (one paper).
7. One of the following:
   Botany, Chemistry, Physics (one paper); a **Language** not already chosen (two papers).

For candidates intending to take the B.Sc. course in Arts.

1. **English** (two papers).
2. **History** (one paper).
3. **Algebra, Part I** and **Arithmetic** (one paper).
4. **Geometry, Part I** (one paper).
5. **French** (two papers).
6. **Latin** *or* **German** (two papers) *or* **Physics** (one paper).
7. One of the following:
   Botany, Chemistry, Physics—if not already chosen (one paper); **Latin,** if not already chosen (two papers); **Greek** (two papers).

Candidates who intend ultimately to proceed to the study of Medicine are reminded that for medical registration it is necessary to take Latin.

For candidates entering on the course for the Diploma of Commerce.

One of the following examinations:—

(1) The ordinary matriculation examination for the B.A. or the B.Sc. Course.

(2) An examination on the following subjects:—

1. **English** (two papers).
2. **History** (one paper).
3. **French,** including oral examination (two papers).
4. **Algebra, Part I** and **Arithmetic** (one paper).
5. **Geometry, Part I** (one paper).
6. One of the following, viz:
   Botany, Chemistry, Physics (one paper).

Holders of Model diplomas who are certified by the Head of the School for Teachers of Macdonald College to have taken 75 per cent. of the total marks at their final examinations, with not less than 50 per cent. of the marks in (1) mathematics, (2) French, and (3) Latin or Greek, respectively, will be admitted without further examination as undergraduates of the first year in Arts.

Senior Matriculation.

(Admission to Second Year.)

For candidates taking the B.A. course.

1. **Latin** *or* **Greek.**
2. **English.**
3. **History.**
4. **Latin** (if not already taken) *or* **Greek** (if not already taken) *or* **French** *or* **German.**
5. **Mathematics (Algebra, Geometry** and **Trigonometry)**
6. **Physics.**

The requirements in each subject are stated on pp. 40 to 42.

FACULTY OF APPLIED SCIENCE.

(For all courses leading to the Degree of B.Sc. in the different branches of Engineering.)

1. **English** (two papers).
2. **History** (one paper).
3. One of the following:
   French, German, Latin, Greek (two papers).
4. **Algebra, Part I** and **Arithmetic,** and **Algebra, Part II** (two papers).
5. **Geometry, Parts I** and **II** (two papers).
6. **Trigonometry** (one paper).
7. One of the following:
   Botany, Chemistry, Physics (one paper), a **Language** not already chosen (two papers).

(For the course leading to the Degree of B.Arch.)

1. **English** (two papers).
2. **History** (one paper).
3. **French** (two papers).
4. One of the following:
   Greek, Latin, German (two papers), **Chemistry, Physics** (one paper).
5. **Algebra, Part I** and **Arithmetic** and **Algebra, Part II** (two papers).
6. **Geometry, Parts I** and **II** (two papers).
7. **Trigonometry.**
8. **Freehand and Geometrical Drawing.**

In the case of No. 8, applicants may send specimens of their work to the Head of the Department or take an examination at the time of the regular matriculation examination in September. No examinations taken elsewhere are accepted as equivalents for this subject.

No student will be admitted to the Department of Architecture as an undergraduate, until he has satisfied the matriculation requirements in drawing.

FACULTY OF MEDICINE.

1. **English** (two papers).
2. **History** (one paper).
3. **Latin** (two papers).
4. **Algebra, Part I** and **Arithmetic** (one paper).
5. **Geometry, Part I** (one paper).
6. **Chemistry** (one paper).
7. **Physics** (one paper).
8. One of the following.
   Greek, French, German (two papers).

In addition to the certificates mentioned on pages 18 and 19, the following are accepted *pro tanto* in lieu of the matriculation examination in this Faculty:

The degree of Bachelor of Arts obtained from any recognized university.

A certificate of having passed the examination of a Provincial Medical Council.

In the case of candidates from the United States, a certificate of having passed a State or University examination.

No candidate will be admitted to the Faculty of Medicine without having satisfied all the matriculation examination requirements.

Those who intend to practise medicine in any of the Provinces of Canada will obtain information regarding registration and admission to study by corresponding with the Registrars of the several Provincial Medical Councils. (For names, see page 285.)

FACULTY OF LAW.

1. **English** (two papers).
2. **History** (one paper).
3. **Latin** (two papers).
4. **French** (two papers).
5. **Algebra, Part I,** and **Arithmetic** (one paper).
6. **Geometry, Part I** (one paper).
7. One of the following:—
   Botany, Chemistry, Physics (one paper), **Greek, German** (two papers).

In addition to those who qualify on the certificates mentioned on pages 18 and 19, Bachelors of Arts, Science, or Letters of any Canadian or British University are admitted without examination.

Candidates who intend to practise law or to be admitted to the notarial profession in the Province of Quebec are referred to the statutory requirements as shown on page 280. If they are not graduates they should pass the examination for admission to study required by the Council of the Bar or by the Board of Notaries, as the case may be, before seeking to matriculate. In that case they will be matriculated without examination.

FACULTY OF AGRICULTURE.

(*For the course leading to the Degree of B.S.A.*)

1. **English** (two papers).
2. **History** (one paper).
3. **Latin** *or* **French** *or* **German** (two papers).
4. **Algebra, Part I** and **Arithmetic** (one paper).
5. **Geometry, Part I** (one paper).
6. Any two of the following:—
   Botany, Chemistry, Physics, Zoology (one paper).

A matriculation certificate for entrance to any other Faculty of the University will also be accepted.

For the next two or three years, however, candidates for the degree will be allowed to proceed on satisfying the following conditions:—

(1) Pass before entrance in English grammar, history and geography, arithmetic and English composition.

(2) Obtain 60 per cent. of the marks in English and 50 per cent. in general proficiency in an examination on the work of the Two-Year Course, and be granted the permission of the Faculty to continue.

DEPARTMENT OF MUSIC.

(*For the course leading to the Degree of Bachelor of Music.*)

1. **English Grammar** (one paper).
2. **History** and **Geography** (one paper).
3. **Arithmetic** (one paper).
4. **English** (two papers).
5. **French** *or* **German** *or* **Italian** (two papers).
6. **Rudiments of Music** (musical intervals, scales, clefs, time signatures, construction of chords, elementary harmony to chord of dominant seventh (one paper).

Optional:—Algebra, Part I, and Arithmetic, and Geometry, Part I. A pass in either, or both, of these subjects will help to make up for deficiency in any others.

IV. REQUIREMENTS IN EACH SUBJECT.

For Junior Matriculation.

English Grammar.*

Main facts in connection with the history of the language: etymology and syntax. A good knowledge of parsing and analysis is essential. West's English Grammar for Beginners is recommended as a text-book.

One examination paper of two hours.

---

* For candidates intending to enter the Faculty of Agriculture or the Department of Music.

Arithmetic.*

All the ordinary rules, including square root, and a knowledge of the metric system.

One examination paper of two hours.

History and Historical Geography.

For 1916 and 1917:—

Either Introduction to World History, by Keatinge and Fraser, *or* British History from 1485 to the present time. Gardiner's Outline of English History contains the minimum requirements.

The geography required will be that relating to the history prescribed.

One examination paper of two hours.

English.

The principles of English composition, as in Sykes's Elementary Composition, or English Composition by Latham and Macmillan (Educational Book Co.), with a short essay on a general subject and two or three others based on the works prescribed for reading, as follows:—(a) Prose (two books to be selected)—Washington Irving, The Sketch Book (ed. Litchfield, Ginn & Co.); Scott, Ivanhoe; George Eliot, Silas Marner (ed. Witham, Ginn & Co.); Addison and Steele, Sir Roger De Coverley Papers (ed. Litchfield, Ginn & Co.). (b) Poetry (one to be selected)—Shakespeare, The Tempest (Macmillan or Ginn); Tennyson, Gareth and Lynette (Macmillan or Ginn); Longfellow, The Courtship of Miles Standish. The editions are merely recommended, not required.

The books selected should be read carefully, but the student's attention should not be so fixed upon details that he fails to appreciate the main purpose and beauty of the work.

Frequent practice in composition is essential.

B. *Literature* (for critical study).—Any two of the following: Shakspere, Julius Cæsar; Nineteenth Century Prose

* For candidates intending to enter the Faculty of Agriculture or the Department of Music.

(ed. Cunliffe), pp. 127 to the end, with notes (Copp, Clark Co.); Poems of the Romantic Revival (Copp, Clark Co.), pages 83 to the end, with notes.

Candidates will be expected to have memorized some of the finest passages.

Two examination papers of two hours each.

An alternative paper will be set on the work specified in English for the Junior matriculation examination of the Province of Ontario.

Spelling will be tested by the candidates' papers in English. Examiners in other subjects will also take note of mis-spelled words and will report flagrant cases to the Board.

Greek.

For 1916 and 1917.

Philpotts and Jerram, Easy Selections from Xenophon, chaps, 3, 4, 5; Homer, Iliad I, lines 1 to 350.

Grammar.—Knowledge of grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

Translation at Sight from Greek into English.

Two papers of two hours each will be set; one on the prescribed texts, the other on translation at sight, accidence and syntax.

Alternative questions will be set on the work prescribed in Greek for the junior matriculation examination of the Province of Ontario, if this differs from that specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

Latin.

For 1916 and 1917.

Texts.—(A) Cæsar, De Bello Gallico, Books II and III; and (B) *Either* Ovid, Stories from the Metamorphoses (as in Gleason's "A Term of Ovid," American Book Company), lines 1 to 670, *or* Virgil, Aeneid II (Wainwright, Bell's Illustrated Classics), verses 1 to 505.

Grammar.—Knowledge of grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

Translation at Sight from Latin into English.

Composition.—Translation into Latin of detached English sentences and easy narrative based on the prescribed texts.

Two papers of two hours each will be set; one on composition and translation at sight, the other on prescribed texts and grammar.

Note.—The "Roman" method of pronouncing Latin is recommended.

An alternative paper will be set on the Latin texts prescribed for the Junior matriculation examination of the Province of Ontario, if these differ from those specified above.

At the September examination other texts in Latin equivalent to those specified may be accepted, if application be made to the Registrar at least a month before the day of the examination.

French.

Grammar.—A thorough knowledge of French accidence and of those points of syntax which are of more frequent occurrence in an ordinary easy style.

Translation at Sight into English of a French passage of moderate difficulty.

Translation at Sight into French of detached English sentences and an easy English passage. Material for such translation is selected with a view to testing the candidate's general knowledge of French grammar.

Books recommended:—Fraser and Squair's French Grammar or Bertenshaw's French Grammar (Longmans), and Cameron's Elements of French Prose Composition (Holt & Co.).

A list of French texts suitable for class reading can be obtained by applying to the Registrar.

Two papers will be set, of two hours each, one on grammar, including translation of short English sentences into French and one on translation of continuous passages from French into English and from English into French.

German.

Grammar.—A thorough knowledge of German accidence and syntax, as in Van der Smissen, or any other German grammar of equally good standing.

Translation at Sight into English of a German passage of moderate difficulty.

Translation into German of detached English sentences and of an easy English passage. Material for such translation is selected with a view to exemplifying the points of grammar included within the above limits.

TEXTS.—(Translation and grammatical study) :—

For 1916:—

Volkmann, Kleine Geschichten (Heath & Co.); Stille Wasser, ed. Bernhardt (Heath & Co.). It is recommended that candidates should read the prescribed texts in the above order, beginning in Volkmann's Kleine Geschichten with Himmelschlüssel and Siebenmeilenstiefel.

For 1917 and 1918:—

Glück auf (Ginn & Co.), to be read first; then Fritz auf Ferien (Copp, Clark Co.).

The Ontario Junior matriculation requirements in German will be accepted in place of the texts specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

Two papers will be set, of two hours each, one on grammar, including translation of short English sentences into German, and one on translation of continuous passages from German into English and from English into German.

Algebra, Part I and **Arithmetic.**

Algebra.—Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities; as in Hall and Knight's Elementary Algebra, to the end of surds (omitting portions marked with an asterisk), or as in similar text-books.

Arithmetic.—Vulgar and decimal fractions, square and cube root, commercial rules, and the metric system.

One examination paper of two hours.

Algebra Part II.

The three progressions, ratio, proportion, variation, permutations and combinations, binomial theorem, logarithms, theory of quadratic equations, as in the remainder of Hall and Knight's Elementary Algebra (omitting Chaps. 40 to 44 inclusive), or as in similar text-books.

One examination paper of an hour and three-quarters.

Geometry, Part I.

The paper shall contain questions on practical and on theoretical geometry. Every candidate shall be expected to answer questions in both branches of the subject.

The questions on practical geometry shall be set on the constructions contained in the annexed Schedule A, together with easy extensions of them. In cases where the validity of a construction is not obvious, the reasoning by which it is justified may be required. Every candidate shall provide himself with a ruler graduated in inches and tenths of an inch, and in centimetres and millimetres, a set square, a protractor, compasses and a hard pencil. All figures should be drawn accurately. Questions may be set in which the use of the set square or the protractor is forbidden.

The questions on theoretical geometry shall consist of theorems contained in the annexed Schedule B, together with questions upon these theorems, easy deductions from them, and arithmetical illustrations. Any proof of a proposition shall be accepted which appears to the examiners to form part of a systematic treatment of the subject; the order in which the theorems are stated in Schedule B is not imposed as the sequence of their treatment.

In the proof of theorems and deductions from them, the use of hypothetical constructions shall be permitted. Proofs which are only applicable to commensurable magnitudes shall be accepted.

Schedule A.

Bisection of angles and of straight lines.

Construction of perpendiculars to straight lines.

Construction of an angle equal to a given angle.

Construction of parallels to a given straight line.

Simple cases of the construction from sufficient data of triangles and quadrilaterals.

Division of straight lines into a given number of equal parts or into parts in any given proportions.

Construction of a triangle equal in area to a given polygon.

Construction of tangents to a circle and of common tangents to two circles.

Simple cases of the construction of circles from sufficient data.

Construction of a fourth proportional to three given straight lines and a mean proportional to two given straight lines.

Construction of regular figures of 3, 4, 6 or 8 sides in or about a given circle.

Construction of a square equal in area to a given polygon.

SCHEDULE B.

If a straight line stands on another straight line, the sum of the two angles so formed is equal to two right angles; and the converse.

If two straight lines intersect, the vertically opposite angles are equal.

When a straight line cuts two other straight lines, if (i) a pair of alternate angles are equal or (ii) a pair of corresponding angles are equal, or (iii) a pair of interior angles on the same side of the cutting line are together equal to two right angles, then the two straight lines are parallel; and the converse.

Straight lines which are parallel to the same straight line are parallel to one another.

The sum of the angles of a triangle is equal to two right angles.

If the sides of a convex polygon are produced in order, the sum of the angles so formed is equal to four right angles.

If two triangles have two sides of the one equal to two sides of the other, each to each, and also the angles contained by those sides equal, the triangles are congruent.

If two triangles have two angles of the one equal to two angles of the other, each to each, and also one side of the one equal to the corresponding side of the other, the triangles are congruent.

If two sides of a triangle are equal, the angles opposite to these sides are equal; and the converse.

If two triangles have the three sides of the one equal to the three sides of the other, each to each, the triangles are congruent.

If two right-angled triangles have their hypotenuses equal, and one side of the one equal to one side of the other, the triangles are congruent.

If two sides of a triangle are unequal, the greater side has the greater angle opposite to it; and the converse.

Of all the straight lines that can be drawn to a given straight line from a given point outside it, the perpendicular is the shortest.

The opposite sides and angles of a parallelogram are equal, each diagonal bisects the parallelogram, and the diagonals bisect one another.

If there are three or more parallel straight lines, and the intercepts made by them on any straight line that cuts them are equal, then the corresponding intercepts on any other straight line that cuts them are also equal.

Parallelograms on the same or equal bases and of the same altitude are equal in area.

Triangles on the same or equal bases and of the same altitude are equal in area.

Equal triangles on the same or equal bases are of the same altitude.

Illustrations and explanations of the geometrical theorems corresponding to the following algebraical identities:

$$\begin{aligned} k(a+b+c\ldots) &= ka+kb+kc+\ldots \\ (a+b)^2 &= a^2+2ab+b^2 \quad \ldots \\ (a-b)^2 &= a^2-2ab+b^2 \quad \ldots \\ (a^2-b^2) &= (a+b)(a-b). \end{aligned}$$

The square on a side of a triangle is greater than, equal to, or less than the sum of the squares on the other two sides, according as the angle contained by those sides is obtuse, right, or acute. The difference in the cases of inequality is twice the rectangle contained by one of the two sides and the projection on it of the other.

The locus of a point which is equidistant from two fixed points is the perpendicular bisector of the straight line joining the two fixed points.

The locus of a point which is equidistant from two intersecting straight lines consists of the pair of straight lines which bisect the angles between the two given lines.

A straight line, drawn from the centre of a circle to bisect a chord which is not a diameter, is at right angles to the chord; conversely, the perpendicular to a chord from the centre bisects the chord.

There is one circle, and one only, which passes through three given points not in a straight line.

In equal circles (or, in the same circle) (i) if two arcs subtend equal angles at the centres, they are equal; (ii) conversely, if two arcs are equal, they subtend equal angles at the centres.

In equal circles (or, in the same circle) (i) if two chords are equal, they cut off equal arcs; (ii) conversely, if two arcs are equal, the chords of the arcs are equal.

Equal chords of a circle are equidistant from the centre; and the converse.

The tangent at any point of a circle and the radius through the point are perpendicular to one another.

If two circles touch, the point of contact lies on the straight line through the centres.

The angle which an arc of a circle subtends at the centre is double that which it subtends at any point on the remaining part of the circumference.

Angles in the same segment of a circle are equal; and, if the line joining two points subtends equal angles at two other points on the same side of it, the four points lie on a circle.

The angle in a semicircle is a right angle; the angle in a segment greater than a semicircle is less than a right angle; and the angle in a segment less than a semicircle is greater than a right angle.

The opposite angles of any quadrilateral inscribed in a circle are supplementary; and the converse.

If a straight line touch a circle, and from the point of contact a chord be drawn, the angles which this chord makes with the tangent are equal to the angles in the alternate segments.

If two chords of a circle intersect either inside or outside the circle the rectangle contained by the parts of the one is equal to the rectangle contained by the parts of the other.

If a straight line is drawn parallel to one side of a triangle, the other two sides are divided proportionally; and the converse.

If two triangles are equiangular their corresponding sides are proportional; and the converse.

If two triangles have one angle of the one equal to one angle of the other and the sides about these equal angles proportional, the triangles are similar.

The internal bisector of an angle of a triangle divides the opposite side internally in the ratio of the sides containing the angle, and likewise the external bisector externally.

The ratio of the areas of similar triangles is equal to the ratio of the squares on corresponding sides.

Text-book recommended:—Godfrey and Siddons' Elementary Geometry (Pitt Press, Cambridge), or Hall and Stevens' School Geometry.

An alternative paper will be set on the Ontario Junior matriculation requirements in this subject.

One examination paper of two hours.

Geometry, Part II.

Constructions.

To draw the inscribed, escribed, and circumscribing circles of a triangle.

To construct triangles under given conditions.

To divide a given line externally and internally in medial section.

To construct an isosceles triangle, such that each of the base angles is twice the vertical angle.

To describe a regular pentagon.

To construct a polygon similar to a given polygon, and such that their areas are in a given ratio.

To construct a figure equal in area to a given figure A, and similar to another figure B.

Theorems.

If two sides of one triangle be equal respectively to two sides of another, that with the greater contained angle has the greater base; and conversely.

If a triangle is such that the square on one side is equal to the sum of the squares on the other two sides, the angle contained by these sides is a right angle.

The three medians of a triangle are concurrent.

Perpendiculars from the angles to the opposite sides of a triangle are concurrent.

The complements of parallelograms about the diagonal of any parallelogram are equal.

If the circumference of a circle be divided into n equal arcs:—

(1) The points of division are the vertices of a regular polygon of n sides inscribed in the circle.

(2) If tangents be drawn to the circle at these points, these tangents are the sides of a regular polygon of n sides circumscribed about the circle.

If $OA:OB = OC^2$, OC is a tangent to the circle through A B C.

If two triangles have an angle in each equal, and the sides about two other angles proportional, the remaining angles are equal or supplemental.

The perpendicular from the right angle of a right-angled triangle on the hypotenuse divides the triangle into two triangles which are similar to the original triangle.

The sum of the rectangles contained by the opposite sides of a quadrilateral, about which a circle can be described, is equal to the rectangle contained by its diagonals.

The squares on two sides of a triangle are together equal to twice the square on half the third side and twice the square on the median to that side.

If from the vertical angle of a triangle a straight line be drawn perpendicular to the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpndicular and the diameter of the circle described about the triangle.

If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle.

The areas of two similar polygons are as the squares on corresponding sides.

In a right angled triangle the rectilineal figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the other two sides.

If three lines be proportional, the first is to the third as the figure on the first is to a similar figure on the second.

If the straight lines joining a point to the vertices of a given polygon are divided (all externally or all internally) in the same ratio, the two points of division are the vertices of a similar polygon.

Two similar polygons may be so placed that the lines adjoining corresponding points are concurrent.

Triangles of equal altitude are as their bases.

In equal circles, angles, whether at the centres or circumferences, are proportional to the arcs on which they stand.

If P is any point on the circumscribing circle of a triangle, ABC, and PL, PM, PN are perpendicular to BC, CA, AB, respectively, LNM is a straight line.

A point P moves so that the ratio of its distances from two fixed points, Q and R, is constant; prove that the locus of P is a circle.

Areas.

Area of a circle.
Area of a sector of a circle.
Area of a segment of a circle.

Use of Squared Paper.

Marking points.
Finding areas of rectilinear and curvilinear figures.
Examples of plotting loci; in particular, the ellipse, hyperbola, and parabola.
Examples of loci and envelopes.

Deductions and Applications.

Deductions from and simple applications of the constructions and theorems given above.

Text-book:—Godfrey and Siddons' Elementary Geometry (Pitt Press, Cambridge), or Hall and Stevens' School Geometry.

One examination paper of two hours.

An alternative paper will be set on the work prescribed for Senior matriculation in Geometry in the Province of Ontario.

Trigonometry.

Measurement of angles, trigonometrical ratios or functions of one angle, of two angles, and of a multiple angle; as in Lock's Elementary Trigonometry, Chaps. I. to XII., Hall and Knight's Trigonometry, Chaps. I. to XII., inclusive, omitting Chap. V.; or as in similar text-books.

One examination paper of an hour and a half.

Botany.

Text-books recommended:—Bergen and Davis, Principles of Botany, or Atkinson, Elementary Botany.

One examination paper of an hour and a half.

Chemistry.

(1) *For admission to the Faculties of Arts, Law and Applied Science.*

Elementary inorganic chemistry, comprising the preparation and properties of the chief non-metallic elements and their more important compounds, the laws of chemical action, combining weight, etc. Text-books:—"Elementary Chemistry for High Schools," by Nevil Norton Evans (Educational Book Company, Limited, Toronto), Chaps. I. to XVI. inclusive, *or* for 1916, but not thereafter, Remsen's "Elements of Chemistry," pp. 1 to 165 and 218 to 243. (Macmillan's edition.)

One examination paper of an hour and a half.

(2) *For admission to the Faculty of Medicine, in* 1917 *and thereafter.*

It is recommended that the course extend over one school year and consist of a minimum of two hours' class-room work and one period of two hours' practical work per week; or the equivalent amount of instruction extended over more than one school year.

Class Work:—Physical and chemical changes, elements, compounds, mixtures and solutions; fundamental chemical laws and principles, as definite proportions, multiple proportions, constancy of mass, equivalence, catalysis, and the atomic hypothesis; Avogadro's hypothesis and its applications; electrolysis, with brief reference to ionization in solutions; properties of acids, bases, and salts; types of chemical reactions; methods of oxidation, reduction and replacement; chemical nomenclature; use of formulæ and equations.

Occurrence, preparation, physical and chemical properties of the following elements; hydrogen, oxygen, nitrogen, sulphur, sodium, chlorine, bromine, iodine, carbon, calcium, phosphorus; general properties of the metals as a class; the chemistry and uses in the industries and in everyday life of the following compounds: water, hydrogen chloride, hydrogen sulphide, sulphur dioxide, sulphuric acid, ammonia, nitric acid, carbon monoxide, carbon dioxide, silicon dioxide, sodium hydroxide, sodium carbonate, calcium carbonate, calcium sulphate, calcium oxide.

Practical Work:—Note-books are to be kept by pupils in which the experiments are to be recorded and reactions described. These should be certified by the teacher as representing the actual laboratory work performed. The work should include: the preparation of most of the gases described in the class-room work, and a study of their chief characteristics and properties; neutralization properties of acids, bases and salts; formation of oxides of metals and several salts, such as sulphates, nitrates, chlorides, etc.; crystallization, filtration, distillation and sublimation; the preparation of

(say) nitric acid, bromine and iodine; a few samples of precipitation tests for metals in salts. All experiments to be explained and wherever possible represented by equations in the note-books.

Text-book:—Elementary Chemistry for High Schools, by Nevil Norton Evans (Educational Book Co., Limited, Toronto), Chaps. I. to XXIII., inclusive.

One examination paper of two hours.

Physics.

(1) *For admission to the Faculties of Arts, Law and Applied Science.*

Properties of matter; elementary mechanics of solids and fluids, including the laws of motion, simple machines, work, energy; fluid pressure and specific gravity; thermometry, the effects and modes of transmission of heat.

Text-books recommended:—Gage's Introduction to Physical Science, 1902 edition (Ginn & Co.), Chaps. I. to IV., inclusive; or "Physics" by Mann & Twiss, Revised Edition (Educational Book Co., Toronto).

One examination paper of an hour and a half.

(2) *For admission to the Faculty of Medicine, in* 1917 *and thereafter.*

An experimental course defined as follows, and including simple problems:

Electricity:—Magnetism; laws of magnetic attraction and repulsion; magnetic lines of force; phenomena of induction; inclination and declination of the compass; production and detection of electricity; electrical conductors and insulators; electroscopes and their construction; electrical conduction through air; radioactivity illustrated by means of uranium and thorium salts; electrical conduction in liquids; electrolysis; electroplating and electrotyping, voltmeters, storage and voltaic cells; simple notions of potential; Ohm's Law; electrical units; galvanometers and voltmeters; laws of resistance; divided circuits, experimental determination of current

strength, resistance, and electromotive force; current induction and its general laws; the transformer, the induction coil, dynamo, telephone, motor, ether waves, Roentgen rays, and wireless telegraphy.

Heat:—Nature and sources of heat; relation between volume and the temperature of a gas (Charles' Law); absolute temperature; change of state; latent heat; specific heat; transmission of heat.

Sound:—Vibrations: transversal vibrations, illustrated with pendulums, rods, strings, membranes, plates; longitudinal vibrations illustrated with rods, strings and columns of air; production, propagation, and detection of sound waves; velocity of sound, pitch; standard forks (acoustical C=512, musical A=870); intervals; harmonic scale; diatonic scale; equally tempered scale; vibration of air in organ pipes; nodes and loops in vibrating air columns and in vibrating strings; wave lengths and velocity relations; laws of vibration of strings; interference phenomena; beats; resonance, reflection and absorption of sound.

Light:—The ether, the wave theory of light, rectilinear propagation, image through a pin-hole, beam, pencil; photometry; shadow and grease spot photometers; reflection and scattering of light; laws of reflection; images in plane mirrors, concave and convex mirrors; drawing images; refraction, laws and index of refraction; total reflection; path through a prism; lenses; drawing image produced by a lens by use of critical rays; simple microscope; dispersion and colour; spectrum; recomposition of light; camera.

One examination paper of two hours.

September Examination.

The September matriculation examination in 1915 will commence on Wednesday, the 22nd.

Special arrangements may be made for the examination of candidates who are prevented by severe illness or domestic affliction from presenting themselves on the dates fixed.

FOR SENIOR MATRICULATION.

FACULTY OF ARTS.

This examination is held under the same regulations as apply in the case of students of the first year in Arts.

English.

Composition.—The examination will be designed mainly to test the candidate's ability to write English. He will be expected to have acquired a fairly clear and accurate style, to be able to arrange material in an effective fashion, and to show discrimination in the choice of words. In preparation for the examination, it is suggested that students be required to write mainly on simple, expository subjects that are within the range of their actual experience.

Carpenter's Rhetoric and English Composition (Macmillan) and English Composition by Latham and Macmillan (Educational Book Co.) are recommended as suitable text-books.

Literature.—The examination will be based on the following texts:—Chaucer's Prologue to the Canterbury Tales; Spenser's Faerie Queene, Book I, Cantos 1 and 2; Shakspere's Macbeth and As You Like It; Milton's Minor Poems (L'Allegro, Il Penseroso, Lycidas and Comus); and Bunyan's Pilgrim's Progress, Part I.

Candidates will also be expected to read Long's English Literature (Ginn & Co.), Chapters I.-VII. inclusive, with especial emphasis on the portions most closely connected with the foregoing list of books.

History.

Introduction to European History.—The course starts with the ancient world at about 1000 B.C., and covers the period of European civilization to the beginning of the Mediæval period. Stress will be laid upon the historical geography of this period, and candidates should provide themselves with Putzger's Historischer Schul-Atlas.

The examination will be based on the following texts:—Sanderson, Ancient Oriental Monarchies; Cox, Greeks and

Persians; Curteis, Rise of the Macedonian Empire; Botsford, History of Rome; Adams, Civilization in the Middle Ages, Chapters I.-V.; Plutarch's Lives (The Lives of Themistocles, Pericles, Pyrrhus, Caius Gracchus, Cato the Younger, and Julius Cæsar; Clough's translation).

Latin.

Authors:—Virgil, Georgic IV (Page, Macmillan); Winbolt and Merk's Roman Life Reader (Constable), pp. 20-63.

Prose and Unseen:—A higher standard will be required than for ordinary matriculation. Books suggested, Mitchell's Latin Composition (Macmillan's Canadian School Series); Rivington's Class Books of Latin Unseens, Book IV. (Rivingtons, London).

Roman History:—Outlines to 133 B.C. Book recommended, Botsford, History of Rome (Macmillan), Chaps. I. to VI.

Grammar.—New Latin Grammar by Sonnenschein (Clarendon Press, 1912. N.B.—Note the exact title), pp. 178-211.

Greek.

White's First Greek Book (Ginn & Co.) and Passages for Greek Translation (Peacock & Bell, Macmillan), pp. 1 to 11.

French.

Vreeland & Koren, French Syntax and Composition (Holt); Super, Histoire de France (Holt); Maupassant, Huit Contes Choisis (Heath); Lemaitre, Contes extraits de Myrrha (Heath); Labiche, La Grammaire (Heath); Daudet, Selected Stories (A. B. Co.); Milhau, Choix de Poésies (Le meunier, son fils et l'âme, Oceano Nox, La mort du loup, La nuit de mai, Les yeux); Dumas, Napoléon, including the passages for translation into French (Macmillan).

German.

Van der Smissen und Fraser, High School German Grammar (Copp, Clark Co.); Moscher, Wilkommen in Deutschland (Heath); Baker's German Stories (Holt); Freytag, Die Journalisten (Ginn); Collman, Easy German Poetry (Ginn); Notes on the History of Germany; Horning, German Composition.

Mathematics.

Plane and Solid Geometry.—The equivalent of Books IV., VI. and XI. of Euclid, with supplementary matter from Hall and Stevens' Euclid.

Algebra.—Hall and Knight's Elementary Algebra (omitting chapters 40-42 inclusive), or the same subject matter in similar text-books.

Trigonometry.—Hall and Knight's Elementary Trigonometry to page 210 and chapter 19; nature and use of logarithms (Bottomley's four-figure tables).

Physics.

A general knowledge of the more important principles of elementary physics will be required.

Text-book:—College Physics, by Reed and Guthe (Macmillan), omitting articles with asterisks and the following chapters:—6, 8, 10, 23, 27, 39, 46, 47, 48, 56, 57, 58, 59, 60, 62, 64.

V. ADMISSION TO ADVANCED STANDING.

A student of another university applying for exemption from any subject or subjects which he has already studied is required to submit with his application a Calendar of the University in which he had previously studied, together with a complete statement of the course he has followed and a certificate of the standing gained therein.

The Faculty concerned, if otherwise satisfied, will decide what examination, if any, or what other conditions may be necessary before admitting the candidate.

VI. PHYSICAL EXAMINATION.

In order to promote as far as possible the physical welfare of the student body, every student, on entering the University, will be required to pass a physical examination to be conducted by, or under the direction of, the Medical Director of Physical Education or by a recognized representative.

By such an examination physical defects and weaknesses, amenable to treatment, may be discovered. The student would then be expected to apply to his physician for such remedial measures as his case may require. Those who are examined will also be advised as to the forms of exercise or athletic activities which would likely be beneficial or injurious.

The Medical and Physical Directors will lay before every student entering the first year a schedule of the sports and physical activities which are available and require them to state to which form of exercise they intend to apply themselves. Every student will be expected to spend a reasonable amount of his time on physical exercise, unless he has satisfactory reasons for exemption.

Students who do not present themselves for this examination (or otherwise satisfy the Medical Director), before November 1st, will not be allowed to attend the University.

A further examination will be held after Christmas, when students of the first year will state what they have done, and propose to do, in the way of exercise.

All students entering the University for the first time are required to present a certificate, or other satisfactory evidence, of successful vaccination, failing which, they shall at once be vaccinated in a manner satisfactory to the medical examiner.

VII. AGE OF ADMISSION.

Except under special circumstances, no student under the age of sixteen is admitted to the first year courses in Arts, Applied Science or Medicine, or under the age of seventeen to the second year, and no student under the age of seventeen is admitted to the course in Law.

All students are required to attend lectures at the University in Montreal, or at Macdonald College, as the case may be.

VIII. OPENING AND CLOSING DATES OF SESSION, 1915-1916.

The Session 1915-1916 will open in all Faculties on Saturday, October 2nd, 1915, and on the afternoon of Monday, October 4th (at 4 p.m.) the Principal will deliver the usual inaugural address in the Assembly Hall of the Royal Victoria College. It will end in the Faculties of Arts, Law and Applied Science on Friday, May 12th, 1916.

For information regarding registration, see page 46.

CLASSES OF STUDENTS.

There are four classes of students in the University:

(1) Graduates—students who have previously obtained an ordinary degree at McGill, or elsewhere, and who are now pursuing courses for the Master's degree (in Arts or Applied Science), or for the degree of Ph.D.

(2) Undergraduates—students who have passed the matriculation examination and, in the case of second, third and fourth year students, all the examinations of their course in the years below that in which they are registered.

(3) Conditioned undergraduates—those with defective entrance qualifications or who have failed in one or more of the subjects of their course in the year previous to that in which they are registered.

(4) Partial students—comprising all those who, not belonging to one of the above classes, are taking a partial course of study in the University. Except as provided below, such students may (subject to the approval of the Head of the Department and the Dean or the Committee appointed for this purpose) attend any class without previous examination.

In order to obtain admission to the first year classes in French, intending students must have passed the University matriculation examination, or an equivalent examination, in that subject.

REGISTRATION AND ATTENDANCE.

1. Registration.

BETWEEN SEPTEMBER 27TH AND SEPTEMBER 30TH, BOTH DATES INCLUSIVE, STUDENTS IN ARTS, LAW AND MEDICINE, AND THOSE WITHOUT CONDITIONS IN APPLIED SCIENCE, MAY REGISTER FOR THE SESSION 1915-1916 AT THE OFFICE OF THE UNIVERSITY REGISTRAR. FRIDAY, OCTOBER 1ST, WILL BE SPECIAL REGISTRATION DAY FOR NEW STUDENTS, WHEN THEY WILL REGISTER IN THE WILLIAM MOLSON HALL. ON SATURDAY, OCTOBER 2ND, THOSE WHO HAD BEEN ENROLLED IN ANY PREVIOUS SESSION WILL REGISTER AS FOLLOWS, IF THEY HAVE NOT ALREADY DONE SO:—ARTS STUDENTS (MEN) IN THE WILLIAM MOLSON HALL, (WOMEN) IN THE ROYAL VICTORIA COLLEGE; APPLIED SCIENCE STUDENTS IN THE ENGINEERING BUILDING AND MEDICAL STUDENTS IN THE REGISTRAR'S OFFICE. LECTURES WILL COMMENCE ON MONDAY, OCTOBER 4TH. THE COMPLETE REGULATIONS REGARDING REGISTRATION ARE AS UNDER.

1. Candidates entering on a course of study in any Faculty, whether as undergraduates, conditioned undergraduates, partial students, or graduate students, are required to attend at the office of the University Registrar, or such other place as he may designate, some time during the week preceding the opening day of the session, in order to furnish the information necessary for the University records, to register for the particular classes which they wish to attend, and to sign the following declaration in the matricula or register:—

"I hereby accept and submit myself to the statutes, rules, regulations and ordinances of McGill University, and of the Faculty or Faculties in which I am registered, and to any amendments thereto which may be made while I am a student of the University, and I promise to observe the same."

2. On the day immediately before the opening day of the session students who had been previously enrolled shall register for particular subjects as follows:—Arts students in the Molson Hall; Applied Science students in the Engineering Building; and Medical students at the office of the University Registrar. With the exception of students in Applied Science, who have conditions, they may also register during the five preceding days at the Registrar's Office.

3. Students who for any reason have failed to register at the times specified above will be permitted to do so at the Registrar's Office within a limited time thereafter. In the Faculty of Applied Science, those who do not register on the regular registration day, Saturday, October 2nd, will be allowed to do so thereafter only when they have paid a fee of $5.00 to the Bursar for late registration.

4. The Registrar is empowered to register all students whose records show that they are entitled to attend the classes applied for. All doubtful cases shall be dealt with by committees as follows: in the case of candidates registering for the first time, by a committee of the Matriculation Board; in the case of all others, by a special committee of the Faculty concerned.

5. The names of those who have registered for separate classes shall be sent by the Registrar to the Heads of Departments on registration day and subsequently, as new names are received, and only those for whom cards have been received by an instructor shall be given credit for attendance.

6. Students desiring to make a change in their choice of studies must make application to the Registrar to do so on a regular form. This application must be approved by the Dean of the Faculty in which he is enrolled, whereupon due notice will be sent by the Registrar to all parties concerned. No change in registration will be allowed, except under special circumstances, after the fifteenth day of the session.

7. Persons who wish to pursue courses in the University without a view to qualifying for a degree shall be classified as partial students and shall not be admitted to any course until they have obtained the permission of the Head of the department concerned. Their application must then be approved by the Dean of the Faculty or the committee appointed for this purpose.

8. In the Faculty of Arts, where there is a choice of courses, students in attendance shall be required to choose their electives for the next year before the close of the preceding session, or (in cases where this cannot be done), not later than one week before the opening of the session.

2. Attendance.

1. Students are required to attend at least seven-eighths of the total number of lectures in any one course. Those whose unexcused absences exceed one-eighth of the total number of lectures in a course shall not be permitted to come up for the regular examination in that course; and, in the Faculty of Applied Science, those whose unexcused absences have exceeded one-fourth of the total number of lectures in any course must repeat the work in that course.

Excuses on the ground of illness or domestic affliction shall be dealt with only by the Deans of the respective Faculties.

2. A record shall be kept by each professor or lecturer, in which the presence or absence of students shall be carefully noted. This record shall be submitted to the Faculty when required.*

3. Credit for attendance on any lecture or class may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class room or laboratory. In the case last mentioned, the student may, at the discretion of the Professor, be required to leave the room. Persistence

---

* Physical education for women is included under this regulation.

in any of the above offences against discipline shall, after admonition by the Professor, be reported to the Dean of the Faculty concerned. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.

4. The following special regulation with regard to marking the attendance of students has been adopted by the Faculties of Arts and Applied Science:—

Lectures will commence at five minutes after the hour, on the conclusion of the roll-call. After the commencement of a lecture students are not allowed to enter, except with the permission of the Professor. If permitted to enter, they will, on reporting themselves at the close of the lecture, be marked "late." Two lates will count as one absence. Lectures end at five minutes before the hour.

STUDENTS' EXPENSES.

1. Board and Residence.

No college residences have as yet been erected for men students, but dormitory accommodation for about 60 is provided in Strathcona Hall, the home of the McGill Y.M.C.A. Full particulars concerning terms of residence, etc., may be obtained from the Secretary of the Association, 348 Sherbrooke street west, Montreal, who will also make arrangements to have students who are strangers to the City met on arrival and helped to secure lodgings, if due notice is sent of the station and time at which they will arrive.

A list of suitable boarding and lodging houses in the city is prepared about a fortnight before the opening of the session each year, and may be obtained on application to the Secretary of the McGill Y.M.C.A., Strathcona Hall.

Women students may board and reside either in private houses or in the Royal Victoria College, which provides, in addition to separate lecture rooms, residential accommodation for the women students of the University. The expense of board and residence for the session in the Royal Victoria College is $290. Students who remain for the summer classes pay a fee of $50, which includes board, residence and instruction. Further particulars will be furnished by the Warden.

Board and lodging can be obtained in private houses in the vicinity of the University buildings at a cost of from $30 and upwards per month; or, separately, board at $20 to $25 per month, rooms from $9 to $15 per month.

Board is furnished in the McGill Union at low rates. The dining room, which is a special feature of the Union, will accommodate over 120 students at a time. There is also a lunch counter where meals are served *à la carte*.

2. Approximate Estimate of Cost of Course.

(The session extends from October 1st to May 1st.)

Faculty of Arts (men)*.

	Minimum	Moderate
Tuition Fees	$ 58	$ 58
Fee for Athletics, Union, etc.	10	10
Board and Lodging.....	200	245
Books and Apparatus.....	10	15
	$278	$328

Faculty of Applied Science.

(The session extends from October 1st to May 1st.)

	Minimum	Moderate
Tuition Fees	$197†	$197†
Fee for Athletics, Union, etc.	10	10
Board and Lodging.....	200	245
Books and Instruments.....	30	40
	$437	$492

Students attending summer courses, required in certain years, for an additional period of one month, will have to spend from $30 to $40 extra in those particular years.

---

* For estimate of expenses for women students, see page 361 and the Announcement of the Royal Victoria College.

† In the case of students in Architecture, this fee is only $147.00.

Faculty of Medicine.

(The session extends from October 1st to May 20th.)

	Minimum	Moderate
Tuition Fees	$147	$147
Fee for Athletics, Union, etc.	10	10
Board and Lodging.....	240	280
Books, Instruments, etc....	40	50
	$437	$487

Undergraduates in Arts residing in affiliated theological colleges, with a view to a course in theology, are able to obtain board and lodging for less than the minimum shown above, and in all Faculties the expense under the head of "Books and Instruments" can be reduced by purchasing them at second-hand.

It will be noticed that in the above estimate no account is taken of personal expenses, such as cost of clothes, laundry, etc., nor yet of the caution money deposit which is made by each student at the commencement of the session. This amounts to $5.00 in the Faculties of Arts and Law and $10.00 in the Faculties of Medicine and Applied Science. It might be well also to reckon on at least $15.00 or $20.00 for subscriptions of various kinds.

EXHIBITIONS, SCHOLARSHIPS AND PRIZES.

I. SCHOLARSHIPS, EXHIBITIONS AND PRIZES—GENERAL.

1. THE RHODES SCHOLARSHIP.—This scholarship is of the annual value of £300 sterling and is tenable at the University of Oxford for three years. The scholar must be a British subject, must be over 19 and under 25 years of age, and must have reached at least the end of his sophomore or second year in the University.

Rhodes Scholarships have been awarded as follows:—1904, Herbert J. Rose, B.A., and John G. Archibald, B.A.; 1905, Talbot M. Papineau, B.A.; 1906, Alexander R. McLeod, B.A.; 1908, Frank E. Hawkins, B.A.; 1911, Walter J. Pearse; 1913, W. E. Gladstone Murray, B.A.; 1915, Percy E. Corbett, M.A.

The next election of a Rhodes Scholar in regular course by McGill University will be in 1918.

2. SCIENCE SCHOLARSHIPS GRANTED BY HER MAJESTY'S COMMISSIONERS FOR THE EXHIBITION OF 1851.—These scholarships, of the value of £150 sterling a year, are tenable for two, or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of science such as physics, mechanics and chemistry, the extension of which is specially important for our national industries." Their object is not to facilitate ordinary collegiate studies, but "to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

It is open to students of not less than three years' standing who have shown evidence of capacity for original research, and is tenable at any university or other institution approved by the Commission.

A nomination to one of these Scholarships may be granted to McGill University in 1917, in which event applications should be sent to the Registrar on or before March 1st.

This Scholarship has been awarded as follows:—
Evans, P. N., 1891; Macphail, J. A., 1893; King, R. O., 1895; Gill, J. L. W., 1897; McLean, W. B., 1899; McClung, R. K., 1901; Cooke, H. Lester, 1903; Johnson, F. M. G., 1905; Simpson, J. C., 1907; Boyle, R. W., 1909; Shaw, A. Norman, 1911; Meldrum, W. Buell, 1912; Maass, Otto, 1913; Warneford, Frank H. S., 1915.

3. THE DR. T. STERRY HUNT RESEARCH SCHOLARSHIP IN CHEMISTRY.—It is proposed to offer this scholarship each year to graduate students in the Faculties of Arts and Applied Science.

4. THE P. S. ROSS EXHIBITION of $100.00, founded by Mr. P. D. Ross, B.A.Sc., in memory of his late father, Mr. P. S. Ross, and given through the Ottawa Valley Graduates' Society, will be awarded annually to the candidate from the Ottawa Valley for entrance to any Faculty, who obtains the highest percentage at the June matriculation examination, and attends the University during the ensuing session.

5. THE CHESTER MACNAGHTEN PRIZE of the value of $25.00 in books, established by Russell E. Macnaghten, Esq., M.A., in memory of his late uncle, will be awarded annually, through the University Literary and Debating Society, for reading in English.

6. THE OTTAWA VALLEY GRADUATES' SOCIETY EXHIBITION, value $50. This exhibition will be awarded annually to the candidate from the Ottawa Valley for entrance to any Faculty who obtains the second highest percentage at the June matriculation examination and attends the University during the ensuing session.

II. SCHOLARSHIPS AND EXHIBITIONS IN ARTS.*

GENERAL REGULATIONS.

1. No student can hold more than one exhibition or scholarship at the same time.

2. Exhibitions and scholarships will not necessarily be awarded to the candidates who have obtained the highest marks. An adequate standard of merit will be required.

---

* An exhibition is tenable for one year, a scholarship for two.

3. If in any college year there be not a sufficient number of candidates showing adequate merit, any one or more of the exhibitions or scholarships offered for competition may be given to more deserving candidates in another year.

4. A successful candidate must, in order to retain his scholarship or exhibition, proceed regularly with his college course to the satisfaction of the Faculty.

5. The annual income of the scholarships or exhibitions will be paid in four instalments, viz.:—In October, December, February and April, about the 20th of each month.

EXHIBITIONS AVAILABLE IN ARTS.

The Jane Redpath Exhibition, founded by the late Mrs. Redpath, of Terrace Bank, Montreal:—value about $90; open to both men and women.

The Charles Alexander Scholarship (for men students), founded by the late Charles Alexander, Esq., Montreal, for the encouragement of the study of Classics and other subjects:—value $90.

The Major H. Mills Scholarship, founded by bequest of the late Major Hiram Mills—value $100.

The Barbara Scott Scholarship, founded by the late Miss Barbara Scott, Montreal, for the encouragement of the study of the Classical languages and literature:—value $100 to $120.

Four Mackenzie Exhibitions for Economics and Political Science, founded in memory of the late Hon. Alexander Mackenzie:—value, $50 to $100. (For particulars, see page 57.)

Two Howard Murray Exhibitions for History, maintained by Howard Murray, Esq., for a period of five years; value $100. (For particulars, see page 57.)

One of The Rev. Samuel Massey Exhibitions, founded by Mr. George Massey, in memory of his late father, Rev. Samuel Massey:—value $62.50.

The Hannah Willard Lyman Exhibition:—value $50.

FIRST YEAR EXHIBITIONS IN ARTS.

I. EXHIBITION FOR HOLDERS OF MODEL DIPLOMA.

This exhibition will not be awarded in 1915, nor in 1916.

II. EXHIBITION GRANTED BY THE GRADUATES' SOCIETY OF THE DISTRICT OF BEDFORD.

This exhibition, of the value of $100, will be awarded annually to a "matriculated student in Arts whose parents reside in the District of Bedford, and whose candidature has been approved by a committee of the Society."

III. NARCISSA FARRAND (MRS. N. PETTES) SCHOLARSHIP.

This scholarship, of the value of $300 ($150 for two years), founded by Mr. and Mrs. H. V. Truell, of Sweet Acre, Knowlton, Que., and endowed by them with the sum of $7,000 out of the Narcissa Farrand Fund, will be awarded annually to the candidate from the Eastern Townships who obtains the highest marks at the Arts matriculation examination in June, and who has had his domicile in the Eastern Townships for five consecutive years immediately preceding the examination. Intending competitors must apply to the Registrar before June 1st each year.

IV. THE TRAFALGAR SCHOLARSHIP.

This scholarship was founded in 1913 by certain friends and former pupils of Miss Grace Fairley, to signalize her long and faithful services to education in Montreal, and particularly as head of the Trafalgar Institute. It is of the value of about $100, is tenable for one year only, and will be awarded annually to the student of Trafalgar Institute who obtains the highest marks in the June matriculation examination and matriculates as an undergraduate in the Faculty of Arts.

V. UNIVERSITY ENTRANCE EXHIBITIONS.

For financial reasons, the value of these exhibitions for 1915 and 1916 has been reduced to ten per cent. of the amount hitherto given, and they will be awarded in the form of book prizes.

VI. SECOND YEAR EXHIBITIONS IN ARTS.

Only two of these exhibitions will be awarded in 1915, value $60 each.

VII. THIRD YEAR SCHOLARSHIPS AND EXHIBITIONS IN ARTS.

Four scholarships of the value of $75 each per year are offered for competition in 1915, and three exhibitions of the value of $40 each; also the following:—

Mackenzie Exhibitions:—

Four exhibitions, known as the Mackenzie Exhibitions, are awarded annually in the Department of Economics and Political Science. Two of these, of the value respectively of $100 and $50, tenable for one year, are awarded on the result of a special examination (see page 58), held in September, and open to students who have completed the work of the second year. The tenure of the exhibitions is conditional upon the holders pursuing their studies in the honour work in economics and political science of the third year. The other two exhibitions, of the value respectively of $100 and $50, are awarded on the results of the honour examination of the third year in economics and political science. The exhibitions will not be awarded except on satisfactory evidence of merit; their tenure is conditional upon the holders pursuing their studies in the honour work in economics and political science of the fourth year.

A fourth year Mackenzie exhibition may be held by a student who holds another; a third year exhibition cannot.

Murray Exhibitions:—

Two exhibitions of the value of $100 each, tenable for one year, will be awarded annually in the Department of History. These exhibitions are maintained for a period of five years, from 1915, by Howard Murray, Esq. One of them will be awarded on the result of a special examination open to students who have completed the work of the second year. (For details, see page 58.) Its tenure is conditional upon

the holder taking the honour course in history in the third year. The other exhibition will be awarded on the result of the honour examination of the third year. Its tenure is conditional upon the holder taking the honour course of the fourth year. Neither exhibition will be awarded except upon satisfactory evidence of merit.

REQUIREMENTS IN EACH SUBJECT.

Economics.

For 1915:

John Stuart Mill, Principles of Political Economy, Book I, Book II (Chapters XI, XIV, XV, XVI), Book III and Book V (Chaps. I, II, III, IV, V, VI, X, XI); F. Walker, Political Economy, Advanced Course, Parts I-V (inclusive); J. K. Ingram, History of Political Economy (edition 1893), pp. 1-42 (inclusive), 55-63 (inclusive), 87-104 (inclusive), 196-206 (inclusive), and 231-234 (inclusive); L. L. Price, A Short History of English Commerce and Industry.

History.

Gibbon's Decline and Fall of the Roman Empire, Chaps. I, II, III, XIII, XIV, XL; Bryce's Holy Roman Empire; The Mediæval Empire, Vol. I, Editor Herbert Fisher (Macmillan).

III. PRIZES IN ARTS.

1. **The Neil Stewart Prize.**— An annual prize of $15 is open to all undergraduates and graduates of this University, and also to graduates of any other university, who are students of theology in some college affiliated to this University. The rules which govern the award of this prize are as follows:—

(1) The candidate selected for the prize shall have passed an examination in (a) Hebrew grammar, syntax, easy composition, pointing, and miscellaneous questions; (b) Translation from Hebrew into English, both prepared and unprepared. The Hebrew texts prescribed for the present year are as in the ordinary Hebrew course.

(2) Three papers will be set of three hours each:—One on pointing and translation (with lexical and grammatical notes); one on grammar and composition; and one on miscellaneous questions.

(3) Credit will be given to candidates showing a knowledge of Biblical Aramaic, and Rabbinic, provided the work done on classical Hebrew be thoroughly up to scholarship standard. Special application should be made for a paper on these subjects.

(4) Should no candidate's work be up to the scholarship standard the prize will be withheld, and a prize of $30 will be offered in the following year for the same.

The prize, founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the late Neil Stewart, Esq., of Vankleek Hill.

2. **Early English Text Society's Prize.**—This prize, the annual gift of the Early English Text Society, will be awarded for proficiency in the subjects of the language group in the English honour curriculum of the third and fourth years.

3. **New Shakspere Society's Prize.**—This prize, the annual gift of the New Shakspere Society, open to graduates and undergraduates, will be awarded for a critical knowledge of the following plays of Shakespere:—Hamlet, Macbeth, Othello, King Lear.

4. **Charles G. Coster Memorial Prize.**—This prize, of the value of $25.00, and intended as a tribute to the memory of the late Rev. Chas. G. Coster, M.A., Ph.D., Principal of the Grammar School, St. John, N.B., is offered for competition, by Mr. Colin H. Livingstone, B.A., to undergraduates (men and women) from the Maritime Provinces (Nova Scotia, New Brunswick and Prince Edward Island). It is awarded on the decision of the Dean of the Faculty of Arts to that student in Arts from the Maritime Provinces who shows the greatest proficiency in the examinations at the end of the session.

5. **Annie McIntosh Prize.**—The income of the sum of $425, subscribed by the pupils and friends of the late Miss Annie M. McIntosh, will be offered as a prize to students of the Royal Victoria College in such subject, or for such work, as the Faculty may determine.

6. **Penhallow Prize.**—The income of the sum of $731 collected by the Arts Undergraduates Society in 1911, will be assigned annually to the Department of Botany for a prize to be known as the " Penhallow " prize.

The names of those who have taken honours or certificates will be published in order of merit, with mention, in the case of students of the first and second years, of the schools in which their preliminary education has been received.

IV. SCHOLARSHIPS, EXHIBITIONS AND PRIZES IN APPLIED SCIENCE.

I.—Awarded on the result of Special Examinations.

1. Two prizes, each of $10.00, presented by J. M. McCarthy, Esq., B.A.Sc., to students entering the third year, for proficiency in levelling and transit work.

2. Scholarships covering four years' tuition in the Faculty of Applied Science are also awarded annually by the Grand Trunk and Canadian Pacific Railway Companies. These are open for competition to apprentices and other employees of the companies under twenty-one years of age, as well as to minor sons of employees, and the award is made on the result of the June matriculation examination for entrance to Applied Science. For full particulars as to number of scholarships offered, conditions, etc., application should be made, in the case of the Grand Trunk Railway, to Mr. D. E. Galloway, Assistant to the President, G.T.R. Offices, Montreal; and, in the case of the Canadian Pacific Railway, to Mr. C. H. Buell, office of the Vice-President, C.P.R. Offices, Montreal.

3. Messrs. Babcock & Wilcox, Ltd., offer every second year a scholarship of the value of $200.00 per annum, tenable for two years, to the best all-round man among the Engineering students who, having completed the work of the first and second years, are about to enter the third year, and who intend to make a special study of the subject of Steam Engineering. The conditions under which this scholarship is awarded may be ascertained on application to the Dean of the Faculty. This scholarship will be next awarded in the fall of 1916.

4. The P. S. Ross Entrance Exhibition. For particulars, see page 54.

5. The "George Creeford Browne" Travelling Scholarship in Architecture. This scholarship is of the value of $500 and is awarded annually to a student who has completed three years professional study of architecture in the University. The holder is required to travel for the study of architecture

for a period of not less than three months and to submit evidences of study on his return. Full particulars of the conditions will be supplied on application to the Faculty.

II.—Awarded on results of Sessional Examinations or for special theses.

1. A British Association exhibition of $50.00 and a prize of $25.00, at the end of the third year, to the students who obtain the highest and the second highest aggregate marks, respectively, in the sessional examinations in strength of materials and mechanics of the third year.

2. Three prizes of $25.00, $15.00 and $10.00, at the end of the second year, to the students obtaining the highest, and the second and third highest, aggregate marks, respectively, in the sessional examinations in analytic geometry, calculus and mechanics of the second year.

3. A Scott exhibition of $50.00, founded by the Caledonian Society of Montreal, in commemoration of the centenary of Sir Walter Scott, and two prizes of $25.00 and $15.00, at the end of the first year to the students obtaining the highest, and the second and third highest aggregate marks, respectively, in the sessional examinations in the mathematics, descriptive geometry and physics of the first year.

4. Workshop Prize.—A prize of $20.00, presented by Mr. C. J. Fleet, B.A., B.C.L., for bench and lathe work in the wood-working department, open to students of not more than two terms standing in workshop practice.

5. A prize of $50.00, presented by Mr. James Tighe, B.A.Sc., for research work in hydraulics.

6. An exhibition offered to graduates by Mr. A. E. Childs, M.Sc., for a special research on "The flow of gas through pipes under pressure."

7. A prize of $25.00, presented by Messrs. Anglins, Ltd., to the student obtaining the highest marks in the subject of Architectural Drawing in the second year of the Department of Architecture.

8. A prize of $25.00, presented by Messrs. Anglins, Ltd., to the student obtaining the highest aggregate marks in Construction (Courses Nos. 24, 25, 26, 27) in the second and third years in the Department of Architecture.

9. The following prizes are offered for the best summer essays:—

To the students of the Civil Engineering course, a prize of $25.00, presented by E. B. Greenshields, Esq., B.A.

To the students of the Electrical Engineering course, from a friend, a prize of $25.00.

To the students of the Metallurgical Course, a prize of $25.00, presented by Milton L. Hersey, Esq., D.Sc.

To the students of the Mechanical Engineering course, a prize of $25.00, presented by the Crosby Steam Gauge and Valve Co.

To the students of the Mining Engineering course, a prize of $25.00.

Four prizes, each of the value of $25.00, are offered for competition to student members of the Canadian Society of Civil Engineers, for the best papers on subjects in any department of engineering. The summer theses prepared by students of this University are available for this competition.

Three prizes, each of the value of $25.00, and the President's gold medal, are offered for competition to student members of the Canadian Mining Institute for the best papers on mining subjects.

10. The sum of $25.00 has been voted by the Undergraduates' Society of the Faculty of Applied Science, to be given as prizes for the best papers read before the Society during the session 1915-1916.

11. One of the Rev. Samuel Massey Exhibitions, founded by Mr. George Massey, in memory of his late father, Rev. Samuel Massey (value, $62.50), will be at the disposal of the Faculty of Applied Science for the session 1915-1916.

12. Certificates of merit are given to such students as take the highest place in the sessional and degree examinations.

III.—Awarded at the Discretion of the Faculty.

1. The Hon. Robert Jones' Scholarship, having a value of One Hundred and Twenty-five Dollars ($125.00) per annum, "is granted from time to time to some poor student for the full term of study in the Faculty of Applied Science."

Application for this scholarship should be made through the Dean of the Faculty of Applied Science. In awarding the scholarship the standing of the student in the matriculation examination will be considered, and the scholarship will not be continued if the standing of the student at any time during his course proves to be unsatisfactory.

2. The Baylis Scholarship, founded in memory of Mr. and Mrs. James Baylis, of Montreal, and having an annual value of $100.00, is awarded to some student who is in need of financial assistance to complete his course on entering the second year of the Faculty. The scholarship will be continued during the third and fourth years, if the student's standing continues to be satisfactory.

Applications for this scholarship should be made through the Dean of the Faculty of Applied Science.

3. Three research and teaching fellowships, of the value of $500 each, have been established in the Mining Department—one endowed in memory of the late Sir William Dawson, one endowed by Dr. James Douglas and a third supported by graduates in Mining in the name of the late Dr. B. J. Harrington. All three fellowships are awarded annually if suitable candidates offer.

4. Dr. James Douglas, a member of the Board of Governors, has provided for twelve tutorial bursaries in the Faculty of Applied Science. In assigning these bursaries account will be taken of the circumstances of the applicants as well as of their academic standing.

These bursaries have a value of $100.00 per annum, and carry the obligation of giving tutorial instruction equivalent to one evening a week, to the satisfaction of the Faculty Committee. Students in the third and fourth years of Applied Science only are eligible.

V. EXHIBITIONS AND PRIZES IN MEDICINE.

1. **The Final Prize.**—A prize in books (or a microscope of equivalent value), awarded for the best examination, written and oral, in the final branches. The Holmes' medallist is not permitted to compete for this prize.

2. **The Fourth Year Prize.**—A prize in books, awarded for the best examination, written and oral, in all the branches of the fourth year course.

3. **The Joseph Hils Prize.** (Founded by the late Dr. Joseph Hils, of Woonsocket, R.I.)—A prize in books, awarded to the student who obtains the highest number of marks for a special examination in materia medica and therapeutics.

4. **The Third Year Prize.**—A prize in books awarded for the best examination, written and oral, in the branches of the third year.

5. **The Joseph Morley Drake, M.D., Prize.** (Founded by the late Joseph Morley Drake, M.D.)—A microscope, to be awarded to the student of the third year who obtains the highest number of marks for the examinations in pathology and bacteriology.

6. **The Second Year Prize.**—A prize in books for the best examination in all the branches of the second year course.

7. **The First Year Prize.**—A prize in books for the best examination in all the branches of the first year course.

For fellowships in Medicine, see page 292.

VI. EXHIBITIONS AND PRIZES IN LAW.

1. An exhibition, of the value of $50.00 per annum—to be known as the Alexander Morris Exhibition—has been founded in memory of the late Hon. Alexander Morris, M.A., D.C.L., of Toronto, Ont., and will be awarded to the student who obtains the highest standing in the second year.

2. Various money prizes (among the number being a prize of $15.00, given by the Junior Bar Association of the Province of Quebec, to the student of the final year who takes the highest standing in civil procedure), are awarded to the students of each year who obtain the highest distinction at the examination held at the close of the session. No prize will, however, be awarded to any student unless a sufficiently high standing is attained.

VII. EXHIBITIONS IN MUSIC.

Angus Scholarship:—$150 for three years, covering a regular student's course, given by Mr. R. B. Angus.

Hooper Scholarship:—$50, given by Mr. George Hooper.

Cassavant Scholarship:—$50, given as an organ scholarship by Messrs. Cassavant.

Conservatorium Scholarship:—$50, given by the Conservatorium.

LOAN FUNDS.

1. A fund has been established by the Applied Science Class of 1899, to be known as "The Class of 1899 Fund," for the purpose of aiding, each year, one or more students who, upon the completion of their second year work, require assistance to enable them to finish their course of study. The loans from this fund made to students will be repayable after graduation. Applications should be made through the Dean.

2. The George Henry Frost Fund has been created by the gentleman whose name it bears for the purpose of aiding students who, when commencing the work of the second or subsequent years, in the Faculty of Applied Science, require assistance to enable them to complete their course. Loans from this fund will bear interest at three per cent. and will be repayable within three years after graduation. In making loans from this fund the academic standing of the student will be taken into account.

MEDALS, CERTIFICATES AND HONOURS.

I. IN ARTS.

1. **Gold Medals** will be awarded in the B.A. Honour examinations to students who take the highest honours of the first rank in the subjects stated below, and who shall have passed creditably the ordinary examinations for the degree of B.A., provided they have been recommended therefor to the Corporation by the Faculty, on the report of the examiners:—

The Henry Chapman Gold Medal for Classical Languages and Literature.

The Prince of Wales Gold Medal for Mental and Moral Philosophy.

The Anne Molson Gold Medal for Mathematics and Natural Philosophy.

The Shakspere Gold Medal for English Language and Literature.

The Logan Gold Medal for Geology, Mineralogy and Palæontology.

The Major Hiram Mills Gold Medal for Biology.

The Governor-General's Gold Medal for Modern Languages and Literature.

In addition to the above, certain medals are offered annually by the Alliance Française, at the discretion of the Department of Modern Languages.

If there be no candidate for any medal, or if none of the candidates fulfill the required conditions, the medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subject for which it was intended.

2. **Special Certificates** will be given to those candidates for B.A. who have been placed in the first class at the ordinary B.A. examination; have obtained three-fourths of the maxi-

mum marks in the aggregate of the courses proper to the third and fourth years, are in the first class in not less than half of these courses, and have no third class. At this examination, no candidate who has taken exemptions can be placed in the first class unless he has obtained first class in the examination in four of the subjects offered (each corresponding to a full course of lectures), and has no third class.

3. **Certificates** of high general standing will be granted to those undergraduates of the first two years who have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year, are placed in the first class in not less than half the subjects, and have not more than one third class.

4. **Graduates** who attend lectures in any subject, and pass the corresponding examinations therein, may obtain certificates of their standing, whether the course in question be ordinary or honour.

For prizes in Arts, see page 58.

II. IN APPLIED SCIENCE.

1. The Governor-General's silver medal (the gift of His Royal Highness the Duke of Connaught) will be awarded for graduate research work.

2. A British Association medal is open for competition to students of the graduating class in each of the ten courses, and, if the examiners so recommend, will be awarded to the student taking the highest position in the final examinations. The British Association medals and exhibition were founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

3. A gold medal and three prizes of $25.00, offered by the Canadian Mining Institute. For further particulars, see page 244.

4. Honours.—On graduation, honours will be awarded for advanced work in professional subjects.

5. Certificates may be given to students who have passed through any of the special courses attached to the curriculum.

For prizes in Applied Science, see page 60.

III. IN LAW.

1. The Elizabeth Torrance Gold Medal is awarded to the student who obtains the highest marks in the final examinations, provided that his answers are, in the estimation of the Faculty, of sufficient merit to entitle him to this distinction.

For prizes in Law, see page 64.

IV. IN MEDICINE.

1. **The Holmes Gold Medal,** founded by the Medical Faculty in the year 1865, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, is awarded to the student of the graduating class who receives the highest aggregate number of marks in the different branches comprised in the medical curriculum.

The student who gains the Holmes Medal has the option of exchanging it for a bronze medal and the money equivalent of the gold medal.

2. **The Sutherland Gold Medal,** founded in 1878 by the late Mrs. Sutherland, in memory of her late husband, William Sutherland, M.D., formerly Professor of Chemistry in this Faculty, is awarded for the best examination in general and medical chemistry, together with a creditable examination in the primary branches. The examination is held at the end of the third year.

3. **The Wood Gold Medal,** founded by Casey A. Wood, M.D., is awarded to the student of the graduating class who receives the highest aggregate number of marks in the clinical branches of the final year. The winner of the Holmes Medal and the winner of the Final Prize are not permitted to compete for this medal.

For prizes in Medicine, see page 64, and for fellowships, page 292.

FEES.

GENERAL REGULATIONS.

1. Fees shall be paid to the Bursar on or before October 10th. The registration ticket must be shown to the Bursar before the fee is paid. After October 10th an additional fee of $2.00 will be exacted of all students in default.

No fees will be refunded to partial students under any circumstances whatever.

2. Immediately after October 20th the Bursar shall send to the Deans of the several Faculties a list of the registered students who have not paid their fees, on receipt of which the Deans shall cause their names to be struck from the registers of attendance, and such students cannot be re-admitted to any class except on presentation of a special ticket, signed by the Bursar, certifying to the payment of fees.

Students registering after October 20th shall pay their fees at the time of registration, failing which they become subject to the provisions of regulation 2.

MATRICULATION FEES.

See page 20.

FEES IN ARTS.

(*For Regulations re payment, see above.*)

Sessional fee for undergraduates and conditioned undergraduates	$58.00
Sessional fee for undergraduates and conditioned undergraduates in the School of Commerce....	$47.00

(This includes fees for laboratories, library, gymnasium and graduation.)

At the request of the students themselves and by the authority of Corporation, an additional fee of $10.00 will be

exacted from all men undergraduates and conditioned undergraduates, for the support of the Literary Society, the Undergraduates' Society, the Canadian Club, the Union, the McGill Daily and athletics. Women students pay an additional fee of $3.00 for athletics, and $2.50 for the Royal Victoria College Undergraduates' Society.

Fees for partial students—(first and second years).—$16.00 per session for one course† and $10.00 for one half-course† of lectures, including the use of the library; $12.00 per session for each additional course; $8.00 per session for each additional half-course. In addition there will be a fee of $3.00 for athletics.

Fees for partial students—(third and fourth years).—$22.00 per session for one course† and $13.00 for one half-course† of lectures, including the use of the library; $20.00 per session for each additional course; $11.00 per session for each additional half-course. In addition there will be a fee of $3.00 for athletics.

Partial students taking the full curriculum in any one year pay the same fees as undergraduates in that year.

Fees for partial students in the School of Commerce:—

For Political Economy	$ 5.00
For Accountancy (general)	5.00
For Accountancy (higher)	5.00
For Commercial Law	10.00
For all four subjects	20.00

For fees payable by students in taking the double course in Arts and Applied Science, see page 73; and for the fees payable by those in the double course in Arts and Medicine, see page 75.

---

† The lectures and laboratory work, if any, in one subject in any of the four college years constitute a "course," if occupying three hours per week; a "half-course" if occupying less than three hours per week.

Graduates in Arts of this University are allowed, on payment of one-half of the usual fees, to attend all lectures in the undergraduate course, except those for which a special fee is exigible. Graduates of other universities attending full courses in affiliated theological colleges are given the like privilege.

Special fees:—

Supplemental examination in any subject or any part of a subject, taken at the regular date fixed by the Faculty ..... $ 2.00

Supplemental examination, when granted at any other time than the regular date fixed by the Faculty, for each examination period..... 5.00

All fees for supplemental examinations must be paid to the Bursar, and the receipts shown to the Dean before the examination.

Fee for the degree of B.A. or B.Sc. (Arts) conferred in absentia (except when the candidate has been specially exempted by the Faculty).... $20.00

Caution Money.—Every student is required to deposit with the Bursar the sum of $5.00, as caution money, to cover damage done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

FEES IN APPLIED SCIENCE.

(*For Regulations re payment, see page 70.*)

Sessional fee for the undergraduate course in Architecture $147.00
Sessional fee for all other undergraduate courses... 197.00

At the request of the students themselves, and by authority of Corporation, an additional fee of $10.00 will be exacted from all undergraduates and conditioned undergraduates for the support of the Literary Society, the Undergraduates'

Society, the Canadian Club, the Union, the McGill Daily and athletics.

Graduates of this Faculty taking an additional undergraduate course will pay one-half of the undergraduate fee.

Students taking the six year double course in Arts and Applied Science shall pay full fees in Arts for the first three years of their course and the following fees in Applied Science:—

Sessional fee for second and third years of double course (summer school in September, see page 192)	$50.00
Sessional fee for fourth, fifth and sixth years of double course	197.00

The fees for partial students are:—$4.00 for library, $3.00 for athletics, $1.00 for the Undergraduates' Society, and a fee at the rate of $7.00 for an hour a week of instruction during the academic year, but the maximum fee shall in no case exceed the full undergraduate fee.

CAUTION MONEY.—Every student is required to deposit with the Bursar the sum of $10.00, as caution money, to cover damage done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

Fee for the degree of B.Sc., conferred in absentia (except when the candidate has been specially exempted by the Faculty)	$20.00

For regular supplemental examinations, the fee is $2.00 for each subject (for a special supplemental examination it is $5.00). These fees must be paid to the Bursar of the University not later than the day before the examination, and receipt for the same must be shown to the Examination Committee, or the examiner in charge, before the examination papers are distributed.

FEES IN MEDICINE.

(*For Regulations re payment, see page 70.*)

First, Second and Fourth Years.

Sessional fee for the undergraduate course	$147.00
Fee for athletics, Union, etc.*	10.00
Rent of microscope	7.00
Caution money (deposit)†	10.00
	$174.00

Third Year.

Sessional fee	$147.00
Fee for athletics, Union, etc.*	10.00
Rent of miscrope	7.00
Hæmocytometer	7.00
Caution money (deposit)†	10.00
	$181.00

Fifth Year.

Sessional fee	$147.00
Caution money (deposit)†	10.00
Fee for athletics, the Union, etc.*	10.00
Rent of microscope	7.00
Fee for the Degree of M.D., C.M.‡	30.00
	$204.00

* At the request of the students themselves and by authority of Corporation, this additional fee of $10.00 is exacted from all men undergraduates and conditioned undergraduates for the support of the Literary Society, the Undergraduates' Society, the Canadian Club, the Union, the McGill Daily, and athletics.

† The caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any), will be returned at the close of the session.

‡ When the degree is conferred in absentia an additional fee of twenty dollars will be exacted, unless the candidate has been specially exempted by the Faculty.

Students taking the seven year double course in Arts and Medicine, under the old arrangement, shall pay the following fees:—in the first and second years, full undergraduate fees in Arts; in the third year, full fees in Arts and $50.00 in Medicine; in the fourth year, $30.00 in Arts and full fees in Medicine; in the fifth, sixth and seventh years, full fees in Medicine.

These fees shall also be paid by the students who take the B.Sc. course, which qualifies for admission to the third year in medicine. Double course students in Arts and Medicine, qualifying for the degrees B.A. and M.D., shall pay full fees in Arts for two years and in Medicine for five. They shall also pay $30.00 as a graduation fee in the Faculty of Arts, as well as in Medicine.

Sessional fee for students repeating a session..... $35.00

Repeating students must also pay, in addition to the above, $10.00 for athletics, etc., and make the usual caution money deposit of $10.00.

Fee for students from other colleges who have paid full fees there for courses to be taken..... $35.00

These students are also required to pay, in addition, $10.00 for athletics, etc.,* the hospital fees exacted in the year to which they are admitted, and to make the usual caution money deposit of $10.00.

An *ad eundem* fee of $10.00 will be charged students entering from another university in the second, third, fourth or fifth year of the course.

Partial students will be admitted on payment of special fees.

Fee for supplemental examination..... $ 5.00
Fee for the course in Public Health and diploma.. $50.00

FEES IN DENTISTRY.

Students in Dentistry pay the following fees:

Sessional fee	$125.00
Fee for athletics, the Union, etc.*	10.00
Rent of microscope (first and second year students)	7.00
Caution money deposit†	10.00
Graduation fee‡	30.00

FEES IN LAW.

(*For Regulations re payment, see page 70.*)

Registration fee	$ 5.00
Sessional fee for the undergraduate course	77.00
Fee for athletics, the Union, etc.*	10.00
Graduation fee‡	12.50
Fee for Supplemental Examination	2.00

Students taking the six year double course in Arts and Law shall pay full fees for each of the four years in Arts and full fees for each of the three years in Law.

Fees for partial students:—

For course in Roman Law	$20.00
For each of the following courses: successions, criminal law, commercial law, obligations, civil procedure	15.00
For each of the shorter courses	10.00
Athletics fee	3.00

Caution Money.—Every student is required to deposit with the Bursar the sum of $5.00, as caution money, to cover

---

* At the request of the students themselves and by authority of Corporation, this additional fee of $10.00 is exacted from all men undergraduates and conditioned undergraduates for the support of the Literary Society, the Undergraduates' Society, the Canadian Club, the Union, the McGill Daily, and athletics.

† The caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any), will be returned at the close of the session.

‡ When the degree is conferred in absentia an additional fee of twenty dollars will be exacted, unless the candidate has been specially exempted by the Faculty.

damage done to furniture, loss of books, etc. This amount, less deductions (if any), will be returned at the close of the session.

Fee for the degree of D.C.L..... $80.00

FEES IN THE GRADUATE SCHOOL.

For the course leading to the degree of M.A. or M.Sc.	$40.00
For each year of the course leading to the degree of Ph.D.	40.00
Graduation fee for M.A. or M.Sc.....	20.00
" " " " (*In absentia*)....	40.00
" " Ph.D.	30.00
" " D.Sc.	80.00
" " D.Litt.	80.00

The examination and graduation fee is payable when the candidate presents himself for examination and is not returnable if he is unsuccessful. No thesis can be accepted unless it is accompanied by a receipt from the Bursar for this fee. If, however, a candidate for the degree of M.A. or M.Sc. fails he may present himself in a subsequent year without further payment of fees. A candidate for the degree of Ph.D., D.Sc. or D.Litt., in case of failure, may present himself in a subsequent year upon payment of an additional sum amounting to one-half of the usual fee for this degree.

Lecturers, tutors and demonstrators in the University who are proceeding to the degree of Master of Arts, Master of Science, or Doctor of Philosophy, shall, so long as they remain members of the teaching staff, be exempt from the tuition fee, but will be required to pay the fee for graduation in every case. In the event of their leaving the staff after one year of the course, they are required to pay a tuition fee of $20.00 in the M.A. or M.Sc. course and the prescribed fee in the Ph.D. course.

No fee shall be charged for the degree of LL.D., granted *honoris causa*.

FEES IN MUSIC.

Regular students, per session..... $150.00

(This sum will also cover the fees for the diploma or degree examination at the end of each year.)

Senior partial students, per term of 12 weeks..... $35.00
Junior partial students, per term of 12 weeks..... 28.00
Examination and graduation fee for Mus. Doc..... 80.00

This fee is payable in two instalments. The first $40.00 must be paid when the candidate submits his exercise, and is not returnable if that exercise is not approved, but he may in a subsequent year submit another exercise upon payment of one-half of the above amount. The second instalment of $40.00 must be paid before the subsequent examination, and is not returnable should the candidate be unsuccessful, but he may in a subsequent year present himself again for examination upon payment of one-half the above amount.

Information regarding fees to be paid by students for class work and by occasional students, as well as regarding fees for certificates and examinations, when these are not covered by the regular fee, will be found in the special syllabus issued by the Conservatorium of Music.

MISCELLANEOUS FEES.

Library (optional for students in Medicine; included in sessional fee in the case of all others)..... $ 4.00
Gymnasium (optional for undergraduates in Law and Medicine, and also for partial students in all Faculties; included in sessional fee in the case of all others)..... 2.50
Certificate of standing (general)..... 1.00
Certificate of standing, accompanied by a statement of classification in the several subjects of examination 2.00

All applications for certificates must be addressed to the Registrar of the University, accompanied by the required fee.

No certificates are given for attendance on lectures unless the corresponding examinations have been passed.

MORALS AND DISCIPLINE.

1. University discipline shall be exercised by the several Faculties, and by the Committee on Morals and Discipline, subject in the cases hereinafter mentioned to revision or confirmation by Corporation.

2. Subject to the provisions of the following section, each Faculty shall be entitled to exercise University discipline over its own students.

3. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be dealt with by a standing committee of Corporation, to be known as the Committee on Morals and Discipline, which shall consist of the Vice-Principal, the Deans of the several Faculties, one member of the Board of Governors and another member of Corporation who must be outside of the University staff. The two members last named shall be appointed annually at the regular meeting of the Corporation in February. The Committee shall have power to add to their number the President and Vice-President of the Students' Council in cases in which that body has taken action and made a report.

4. All such cases of discipline as are referred to in subsection 3 shall be reported to the Principal, or, in his absence, to the Vice-Principal, or, in the absence of both, to the senior Dean present in the city. If the Principal, or, as the case may be, the Vice-Principal or the Dean, deems action necessary, the matter shall be reported to the Committee on Morals and Discipline.

5. When sentence of expulsion or of suspension for more than three months has been pronounced by a Faculty, or by the Committee on Morals and Discipline, the Corporation may entertain an appeal.

6. "University discipline" shall mean any appropriate method of exercising authority over students, and shall, but without prejudice to the foregoing generality, include the power of expulsion, suspension, disqualifying from competing for scholarships, exhibitions, medals, prizes or honours, imposing fines, not exceeding $25.00, on any student, levying assessments for damage done, reporting to parents or guardians and admonition.

7. Any student found guilty of immoral, dishonest, disorderly or improper conduct, or of wrongfully causing damage to person or property shall be liable to University discipline.

8. If on an occasion of general disorder on the part of a year, class, or group of students, damage be done to University property, or acts committed meriting discipline, and the individuals who have done such damage, or committed such acts, have not been discovered, an assessment to cover the damage may be laid, or a fine imposed, or both, on all the members of such year, class or group.

9. While in college, or in the college grounds, students shall conduct themselves in the same orderly manner as in the class-rooms. Smoking is prohibited in the college buildings, except in such rooms, if any, as may be set apart for that purpose. Any professor observing improper conduct on the part of a student in the college buildings or grounds may admonish him, and, if necessary, report him to the Dean of the Faculty in which he is enrolled. Without, as well as within the walls of the college, every student is required to maintain a good moral character.

COLLEGE GROUNDS AND ATHLETICS.

The management of the college grounds and of out-door athletics and sports is under the control of the Athletics Committee of Corporation.

This Committee is responsible for the general maintenance of all University grounds and retains the ultimate authority and power of supervision in all matters affecting athletics in the University. All matters which may in any way affect athletics must be referred to this Committee and its approval must be obtained before any departure is made from the authorized routine.

The following extracts are made from the rules and regulations of the Committee, for the guidance of members of the University and the several athletic clubs and associations which are from time to time permitted to use the grounds:

During the summer season the Sherbrooke street gates shall be closed between 10 p.m. and 6 a.m. every day, and the University and McTavish street gates between 6 p.m. and 7 a.m. on week days and the whole day on Sunday.

Such persons as are entitled to use the grounds shall be provided with tickets renewable each year. Those entitled to tickets are the members of the University and prominent benefactors, and the families of Governors and Professors.

The several clubs may be permitted to issue special tickets, entitling the holders to admission to the grounds for the purpose of viewing matches, or for other special occasions of public interest.

All students entering the University for the first time and all others desirous of taking part in football matches, or otherwise engaging in violent athletic contests, must pass a medical examination, to be held under the direction of the Medical Director of Physical Education during the month of October. A complete record of all such examinations shall be kept by the Director or some other officer appointed to this duty. The managers and captains of clubs, or other respon-

sible executive officers, are required to insist upon the strict observance of the rule in regard to medical examination, and all the rules and regulations of the Committee which concern them.

All clubs must submit their regulations, rules, and by-laws, and any changes in the same, for the approval of the Committee. They must make application for the use of such portions of the grounds as they require, and for any special privileges.

Clubs must not engage in matches with outside clubs, except with the approval of the Committee.

The Athletic Association must submit its programme for each year for the approval of the Committee.

All students in good standing who are taking a course of study held to be sufficient by a special Committee of the Faculty in which they are enrolled will be allowed to take part in athletics, subject, however, to the general regulation regarding medical examination.

Suspension from lectures for any cause, or absence from more than one-eighth of the total number of lectures given in any course, as shown by the monthly reports furnished to the Dean of each Faculty by the several professors and lecturers, shall be considered as sufficient ground to disqualify a student for engaging in athletic contests.

All students of the University are required to pay a fee of three dollars ($3.00) for the use of the grounds (this is included in the general fee of $10.00 paid by undergraduates). The amount so paid is handed over to the Executive of the Students' Council (less about $800.00, which is expended in the upkeep of the grounds in connection with athletics), and is by this body expended in the interest of College athletics, under the general direction of the Athletics Committee of Corporation.

The amount derived as grounds and athletics fees from the students of the Royal Victoria College is placed at the disposal of the Committee in charge of the grounds, for expenditure in the interests of women-students.

The annual sports of the University are held on the third Friday of October in each year. The day is observed as a holiday.

UNIVERSITY ATHLETIC ASSOCIATION.

All matters connected with athletics at the University are under the immediate supervision of the University Athletic Association, which, in turn, is responsible to the "Athletics Committee of Corporation." The executive of the Athletic Association consists of the presidents of the various clubs of the Association, twelve in number.

The Track Club is entrusted with the regulation and encouragement of "Track and Field Athletics"; the management of the Inter-class sports and of the annual University sports.

The Rugby Football Club is represented by a senior and intermediate team in the Intercollegiate Union, and a junior team in the Q.R.F.U. In addition to these championship matches, a series of inter-class matches is played annually for the "Wood Cup."

The Skating and Hockey Club has a well-established reputation. The Hockey Club is represented by senior and intermediate teams in the Intercollegiate League. As in football, a series of inter-class games is played annually, in this case for the "Capper-Porter Trophy."

The Association Football Club, the Basket-Ball Club, the Boxing Club, the Cricket Club, the Harriers' Club, the Lawn Tennis Club, the Wrestling Club, the Fencing Club, the Polo Club, and the Swimming Club, are the remaining clubs under the Association. Most of them conduct inter-class matches, and have a senior team, which represents the University in outside matches. The Association Football, Basket-Ball, Boxing and Wrestling Clubs, Tennis Club and Swimming Clubs are also represented in Intercollegiate Unions.

PHYSICAL EDUCATION.

For particulars, see page 338.

ACADEMIC DRESS.

Professors, lecturers and students are required to wear academic dress at lectures, except in those cases in which a dispensation shall have been granted by the Faculty.

Undergraduates shall wear a plain black stuff gown, not falling below the knee, with round sleeve cut above elbow.

Bachelor of Arts.—Black stuff gown, falling below knee, with full sleeve cut to elbow and terminating in a point (similar to that of the Cambridge B.A.); hood, black silk, lined with pale blue silk and edged with white fur.

Bachelor of Science.—The same gown as Bachelors of Arts; hood, black silk, lined with yellow silk and edged with white fur.

Bachelor of Science in Agriculture.—The same gown as Bachelors of Arts; hood, black silk, lined with dark green silk and edged with white fur.

Bachelor of Civil Law.—The same gown as Bachelors of Arts; hood, black silk, lined with French grey silk and edged with white fur.

Bachelor of Architecture.—The same gown as Bachelors of Arts; hood, black silk, lined with white silk and edged with white fur.

Bachelor of Music.—The same gown as Bachelors of Arts; hood, black silk, lined with pale mauve silk, and edged with white fur.

Master of Arts.—Black gown of stuff or silk, falling below knee, with long sleeve with semi-circular cut at the bottom (similar to that of the Cambridge M.A.); hood, black silk, lined with pale blue silk.

Master of Science.—The same gown as Masters of Arts; hood, black silk, lined with yellow silk.

Doctor of Medicine.—The same gown as Masters of Arts; hood, scarlet cloth, lined with dark blue silk.

Doctor in Dental Science.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pink silk.

Doctor of Laws.—The same gown as Masters of Arts; hood, scarlet cloth, lined with white silk.

Doctor of Literature.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale blue silk.

Doctor of Science.—The same gown as Masters of Arts; hood, scarlet cloth, lined with yellow silk.

Doctor of Civil Law.—The same gown as Masters of Arts, hood, scarlet cloth, lined with French grey silk.

Doctor of Music.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale mauve silk.

Doctor of Philosophy.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale green silk.

Doctors of Laws, Doctors of Civil Law, Doctors of Literature, Doctors of Science, Doctors of Philosophy and Doctors of Music shall be entitled to wear for full dress a robe of scarlet cloth (similar in pattern to that of the Cambridge LL.D.) faced with silk of the same colour as the lining of their respective hoods.

All hoods shall be in pattern similar to that of the Masters of Arts of Cambridge University.

Undergraduates and graduates shall wear the ordinary black trencher with black tassel, but Doctors of Laws, Doctors of Civil Law, Doctors of Literature, Doctors of Science, Doctors of Philosophy and Doctors of Music shall wear for full dress a black velvet hat with gold chord, similar to that worn by Doctors of Laws of Cambridge University.

Samples of the colours of the linings of all hoods shall be kept for inspection in the office of the Registrar.

FACULTY OF ARTS.

COURSES FOR THE DEGREE OF B.A.

After passing the matriculation examination, an undergraduate, in order to obtain the degree of B.A. or B.Sc., is required to attend regularly the appointed courses of lectures for four years. (Undergraduates are arranged in years, from first to fourth, according to their academic standing.) The conditions of passing into the last three years of the undergraduate course are stated on page 97.

I. ORDINARY COURSE FOR THE DEGREE OF B.A.*

First Year.

Greek 1 *or* 2, *or* Latin 1.
English 1A, 1B and History, 1.
Mathematics 1—Algebra, Geometry and Trigonometry.
Latin 1, *or* Greek 1, *or* French 1, 2, *or* German 1 *or* 2, *or* Spanish.
Physics 1.

Details of the work to be done in each subject are given on pages 101 to 158.

French cannot be taken as a qualifying option in the first year, except by students who have passed the matriculation examination in this subject.

German may be taken instead of trigonometry, in addition to two other foreign languages, by students who intend to read for modern language or English honours. This option will, however, be granted only on the recommendation of the departments concerned.

Students in the first year, who are taking Latin and Greek, with a view to reading for honours, may, on the recommenda-

* For regulations concerning physical education for undergraduate women students, see p. 339 and the Royal Victoria College Announcement. Reports of attendance in physical education will be regularly sent to the Faculty.

tion of the Classical Department, substitute a modern language for physics.

An additional language may be taken as an extra subject in the first two years, if the permission of the Advisory Committee has been obtained at the beginning of the session.

First year students are under the immediate direction of an advisory committee, consisting of members of the staff who are engaged in their instruction. A system of supplementary tutorial teaching is now in operation in this year.

For regulations regarding advancement to the second year, see page 97.

Advanced Courses.—A student qualified to take work of a more advanced character than the ordinary work of the first year in any subject, shall, with the consent of the B.A. Advisory Committee, take such advanced work in that subject as the department concerned may recommend. Students taking the work of advanced courses may be excused from the work of the corresponding ordinary courses, on the recommendation of the professor.

An outline of the first year course for the Diploma of Commerce will be found on page 161.

Second Year.

English Composition 2B.
Latin 2, *or* Greek 2.
and *three* of the following:
Greek 2 *or* Latin 2.
English 2A.
French 3, 4.
German 3.
Semitic Languages A (1) and B.
Psychology and Logic 1A and 1B.
Economics 1 and History 2.
Mathematics 2.
Elementary Biology (Zoology 1 and Botany 1.)
Chemistry 1.
Physics 2—only for students taking the advanced course in Mathematics.

Details of the work to be done in each subject are given on pages 101 to 158.

Advanced courses will be offered in the second year as in the first. Students taking an advanced course may be excused from the work of the corresponding ordinary course, on the recommendation of the professor. An exemption from any one of the subjects specified above, except English composition, may be granted to honour students in mathematics who take both the ordinary and the advanced course in mathematics, but to no others.

An outline of the second year course for the Diploma of Commerce will be found on page 162.

For regulations regarding advancement to the third year, see page 97.

Third and Fourth Years.

Language and Literature.	History, Philosophy and Law.	Science.
English (for Third Year) 3A, 3B, 3C (any two) and 3D; (for Fourth Year); 4A, 4B, 4C (any two) and 4D.	Philosophy 3, 6 *or* 8.	Mathematics 3.
Latin 3.	History.	Mechanics 7 and Astronomy 4 (two half courses).
Greek 3.	†Economics 2.	Physics: Sound, Light, Heat (full course) 3.
Sanskrit 1A, 1B.	Political Science 3.	Electricity and Magnetism (full course) 4.
Comparative Philology (half course) A, B.	Education 1, 2 (half courses).	Chemistry 2, 3, 4; 5, 6; *or* 7, 8.
French 5.	Constitutional Law (half course).	Geology 1.
German 4.	Roman Law.	Zoology 2.
Italian, in alternate years.		Botany 2 (half course) 5.
Semitic Languages (See page 124).		*Physiology.
Anglo-Saxon 5.		*Anatomy.
		Experimental Psychology 10.

Courses in certain military subjects (of which Military History must be one) may be taken as an optional half-course (44 lectures) in either the third or the fourth year For details see page 344.

---

* These courses in the Faculty of Medicine are accepted as the equivalent of ordinary courses in the Faculty of Arts in the case of double course students in Arts and Medicine, but not otherwise.

† Except with the permission of the instructor, this subject can be selected only by students who have studied it in the second year.

Details of the work to be done in each subject are given on pages 101 to 158.

From the above divisions six courses are to be selected by each student in the third and fourth years, three in each year. Each will be studied in lecture courses extending over not more than four hours per week, with collateral reading, and, in the case of science subjects, laboratory work. One subject chosen in the third year *must* be continued by every student in his fourth year (political science 3, will be accepted as a continuation of economics 2, and *vice versa*); two subjects *may* be continued if application to that effect be granted by the Faculty or the Advisory Committee of the Faculty. Of the whole six courses, one *must* and three *may* be chosen by all candidates from the list of subjects included under the head of Science, except when chemistry or biology has been selected as an option in the second year, in which case no science subject need be taken. Lectures in honour courses are open to candidates for the ordinary degree in the third and fourth years, and may be substituted by them for an equivalent amount of the work prescribed for that degree in the proper year.

In addition to the six courses, a course of one hour a week in English composition (3C, 4C) must be taken by every candidate for the ordinary B.A. degree in the third and fourth years, and also by honour students in English.

For an ordinary B.A. degree of the first class, a candidate must obtain not only the required aggregate of marks (*viz.*, three-fourths of the maximum), but also first class standing in three of his subjects, and not less than second class in any subject.

For arrangements whereby a student can take the course in Arts and Applied Science or Law in six years, or Arts and Medicine in seven years, see pages 97 to 100.

II. HONOUR COURSES FOR THE DEGREE OF B.A.

Honours of first, second and third rank will be awarded to successful candidates in any honour course established by the

Faculty, provided they have passed creditably the regular examinations in all the subjects proper to their year.

A student proposing to read for an honour course:—

(1) Must satisfy the Department of his qualifications to proceed with the subject or subjects in question;

(2) Must, while attending lectures, make progress satisfactory to the Department. In case his progress is not satisfactory he may be notified by the Faculty to discontinue attendance.

Students who wish to graduate with honours in any subject are strongly recommended to take the advanced courses in these subjects in the first and second years, where such are provided.

A candidate for honours must take the ordinary course in the subject in which he is reading for honours, but where the honour course corresponds to two ordinary subjects, a candidate may, at the discretion of the department, be exempted from attendance on lectures in these ordinary subjects for a number of hours not exceeding four weekly. In addition to the ordinary subject specified above, he is required to take a second ordinary subject, which may be determined by the department in which he is a candidate for honours. The Faculty may, on the recommendation of the department, exempt any student from the obligation to take a second ordinary subject.

A student who desires to be a candidate for B.A. honours must have taken at least second rank honours in the third year. In that case he shall be required to take only one subject in his ordinary course, *viz.*, that in which he is reading for honours. A candidate, however, who obtains third rank honours at the B.A. examinations, will not be allowed credit at the end of the session for the exemption from other ordinary subjects, unless the examiners certify that his knowledge of the whole honour course is sufficient to justify it.

Honour lectures are open (1) to all partial students who can satisfy the professor of their fitness to proceed with the work of the course (such students will not be ranked with undergraduates in the examination lists); and (2) to candidates for the ordinary degree in the third and fourth years, who may substitute them for an equivalent amount of the work prescribed for that degree in the proper year.

No student is allowed to attend two honour courses.

The honour courses offered are as follows:—

Classics.
Latin and English.
Latin and French.
Latin and German.
Greek and English.
English.
English and French.
English and German.
English and Philosophy.
Modern Languages.
Semitic Languages.
Greek and Hebrew.
Philosophy and Psychology.
Economics and Political Science.
History.
History and English.
Mathematics and Physics.
Chemistry.
Chemistry and Biology.
Geology and Mineralogy.
Biology.

Details of the work to be done in the above courses are given on pages 101 to 158.

III. ORDINARY AND HONOUR COURSES FOR THE DEGREE OF B. Sc. (ARTS).

The ordinary B.Sc. course in Arts has been arranged to give students a thorough training, suitable for those wishing to study pure science as a preliminary to entering a technical business or profession or to teaching science in schools, or simply as part of a general scientific education. The ordinary course, therefore, involves the study of several sciences up to a moderately high university standard and does not include a highly detailed specialized study of any one science, such as is necessary before scientific research work or university teaching can be profitably undertaken.

Students wishing to specialize with a view to research work and university teaching should take an honour B.Sc. course.

First Year.

(1). **English 1A, 1B.**
(2). **German (Beginners).**
(3). **Mathematics 1.**
(4). **Physics 1 and practical work.**
(5). **Chemistry 1, and practical work.**
(6). **French Reading (half course).**

Special arrangements will be made for students who have passed the matriculation examination in German.

Details of the work in the above subjects will be found on pages 101 to 158.

Second, Third and Fourth Years.

At the beginning of the second year, students may elect to take either an ordinary or an honour course. Each student electing to take an ordinary course will be required to select three subjects from the following list and to take the theoretical and practical ordinary degree courses provided in each of them for each of the three years. Three subjects *may* and two *must,* be selected from the Science Group, A; and, if desired, one may be selected from the Literary Group, B. In addition, the student must take English composition in his second year:—

GROUP A.—(1) Mathematics, (2) physics, (3) chemistry, (4) botany, (5) zoology, (6) geology with mineralogy, (7) experimental psychology.

GROUP B.—Philosophy, history, economics, political science, education, English.

Ordinary B.Sc. students who obtain 75 per cent. of the total marks during the three years will be awarded a first class. Extra courses in additional subjects may be taken only on the recommendation of the B.Sc. Committee.

A student proposing to read for an honour course must select one principal subject from the following list, namely, mathematics, physics, chemistry, zoology, botany, and must satisfy the department concerned of his qualifications to pro-

ceed with the study of it.* He will be required to take the lectures and practical work provided for honour students in that subject during each of the three years, and, in addition, such other courses on allied subjects as shall be directed by the professor of the principal subject. All students reading for honours will be required to take a course in scientific German during their second year.

The honour courses include a detailed study of the higher branches of the principal subject in all its aspects, including the methods of research work, both practical and theoretical, and an honour course in all cases will involve a greater total amount of work than the total amount in an ordinary course, although the ordinary course involves a study of three subjects. Students, therefore, should seek advice and exercise due caution before electing to take an honour course.

Students taking an honour course, if sufficiently advanced, may be allowed by the professor of their principal subject to devote a portion of their time to research work, and the results of this work may be submitted to the examiners at the final examinations and shall be taken into account in deciding the class to be awarded to the candidate. In no case, however, shall any such research work be taken in lieu of such competent general knowledge of the principal subject as should be possessed by a candidate for honours. First, second and third class honours will be awarded, and the whole of the work done by the student during the three years shall be taken into account in deciding his class. No student shall obtain a first class who has not obtained 75 per cent. of the total marks during the three years, and no student shall obtain a second class who has not obtained 60 per cent. of the total marks, and no student a third class who has not obtained 50 per cent. In any case, no student shall be awarded honours who, in the opinion of the professor of his principal subject, does not possess such a competent knowledge of his subject as ought to be acquired by an honour student.

---

* Honour courses in other sciences may be arranged on application to the Dean, who will communicate with the Advisory Committee.

Candidates for honours who fail may be excused such part of an ordinary B.Sc. course as the work they have done is clearly equivalent to. Candidates for honours who, in the opinion of the professor of their principal subject, are not making satisfactory progress, may be required to discontinue their honour course and may be excused such part of an ordinary course as the work they have done is equivalent to.

Details of the honour course in each subject will be found in the section of the Calendar dealing with the courses in that subject.

The honour courses should be adapted to the needs of particular students. The following are typical proposed honour courses in chemistry and physics:

CHEMISTRY.

Second Year.—Chemistry, 3 lectures and 9 hours practical.
Physics, 2 lectures and 3 hours practical.
Biology or geology, or mineralogy, 2 lectures and 6 hours practical.

Third Year.—Chemistry, 5 lectures and 12 hours practical.
Physics, 2 lectures and 8 hours practical.
Mathematics (half-course on calculus, etc.), 1 hour.

Fourth Year.—Chemistry, 3 lectures and 18 hours practical.
Optional course on thermodynamics.

PHYSICS.

Second Year.—Physics, 4 lectures and 6 hours practical.
Dynamics, 2 lectures.
Mathematics, 4 lectures.
Physical Chemistry (half-course), 2 lectures.

Third Year.—Physics, 5 lectures and 5 hours practical.
Mathematics, 2 hours.
Dynamics, 2 hours.
Physical Chemistry, 2 hours and 4 practical.

Fourth Year.—Physics, 6 hours lectures and 12 practical.
Mathematics, 2 hours.

B. Sc. COURSE.

FOR STUDENTS PROCEEDING TO MEDICINE.

Course in Physical and Biological Sciences, especially devised for students proceeding to the degree in Medicine or advanced work in physiology, biological chemistry, pharmacology, etc.

Matriculation.

The requirements for entrance to the Faculty of Arts (or Medicine, if the student intends to proceed to the degree in Medicine).

First Year.

1. English 1A, 1B.
2. German (Beginners).
3. Mathematics 1.
4. Physics 1 and practical work.
5. Chemistry 1 and practical work (as in second year Arts).
6. French Reading (half course).

Second Year.

1. English Composition.
2. Physics, courses 1 and 2 (as in Applied Science.)*
3. Elementary Biology, (including plant physiology, comparative anatomy and cytology (as in first year Medicine).
4. Quantitative and qualitative analysis.

Third Year.

1. Organic Chemistry (as in third year Arts).
2. Comparative anatomy of vertebrates (as in fourth year Arts).
3. Physical Chemistry (as in third year Chemistry).
4. Anatomy, including comparative osteology, histology and embryology (as in first year Medicine).

Fourth Year.

1. Physical Chemistry 11 (as in fourth year Chemistry).
2. Anatomy, including comparative embryology and histology (as in second year Medicine), or special advanced Biology.
3. Physiology (as in second year Medicine).
4. Biological Chemistry (as in second year Medicine).

---

* This course is specially arranged by the Department of Physics.

A graduate having taken the above course is qualified to enter the third year of the course in Medicine.

EXAMINATIONS IN ARTS.

1. There are two examinations in each year, *viz.*, at Christmas and at the end of the session. Successful students are arranged in three classes at the sessional examinations. Those who obtain 75 per cent. and over are placed in the first class, those who have between 60 and 75 per cent. in the second class, and those with from 40 to 60 per cent. in the third class.

Christmas examinations will be held in all the subjects of the first and second years, and are obligatory on all undergraduates, and also on all partial students of the first year, unless they have been specially exempted. Partial students of the first year, who fail in the Christmas examinations, will be allowed to continue their course only by obtaining the consent of the Dean and the instructor concerned. *Undergraduates and conditioned undergraduates of the first year who fail in more than three subjects at the Christmas examinations will be allowed to attend not more than three courses after Christmas, for each of which they must obtain the permission of the Dean.*

No course or courses can be counted towards a degree or diploma in the Faculty of Arts, except such as have been taken and passed after matriculation requirements have been satisfied, and according to the regulations governing the various years of the undergraduate course.

Twenty-five per cent. of the marks given for the sessional work in each subject will be assigned to the Christmas examinations. Students prevented by illness from attending the Christmas examinations will, on presenting a medical certificate, be given sessional standing on the results of the April examinations. Christmas examinations in the third and fourth years may be held at the option of the professors. When held, the same value will be assigned to them as in the case of the first and second years.

2. The following are the regulations for advancement to the second, third and fourth years of the undergraduate course and are subject to the condition that a student shall not be allowed to continue a subject of the preceding year in which he has not made good his standing, except in the case of compulsory subjects in the second year.

Advancement to the Second Year.—A student may be allowed to proceed to the second year with one subject of the first year uncompleted.

Advancement to the Third Year.—A student may be allowed to proceed to the third year with one subject uncompleted if that subject belongs to the second year.

Advancement to the Fourth Year.—A student may be allowed to proceed to the fourth year with one subject uncompleted if that subject belongs to the third year.

Repeating Year.—By special permission of the Faculty, a student who is required to repeat his year may, on application:

(a) be exempted from attending lectures and passing examinations in the subjects in which he has already passed;

(b) be permitted to take, in addition to the subjects in which he has failed, one of the subjects of the following year in his course.

N.B.—The choice of subjects must involve no conflict of hours as printed in the time-table.

3. Examinations supplemental to the sessional examinations will be held in September, simultaneously with the matriculation examinations. The time for each supplemental examination will be fixed by the Faculty; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of $5.

4. A list of those to whom the Faculty has granted supplemental examinations in the following September will be published after the sessional examinations.

DOUBLE COURSES

ARTS AND APPLIED SCIENCE.

Students who wish to obtain the degrees of B.A. and B.Sc. (Applied Science) in six years, will spend the first three years

in Arts before attending any regular classes in Applied Science, except the *summer classes* referred to below. The student will then enter the Faculty of Applied Science and devote the remaining three years entirely to the work of that Faculty. The special *summer courses* mentioned are necessary in order to overtake the work in descriptive geometry, drawing and shopwork, which form part of the regular work of the first year in Applied Science. This work must be taken in two periods of one month each (in the month of September), at the close of the regular work of the first and second years in the Faculty of Arts, and must not be taken during the regular session in any of the three years spent in that Faculty.

Students who intend to take the double course in Arts and Applied Science must notify the Dean of the Faculty of Applied Science to this effect, at or before the close of their first year in Arts (May 1st), and must (before the first of September following) pay the fee of $50.00 to the Bursar, for the first of their summer schools.

The subjects which they are required to take each year in the Faculty of Arts are as follows:—

First Year.

The curriculum as laid down for the B.A. degree in this year, except that a modern language *must* be taken. It is recommended that advanced mathematics be taken instead of the ordinary course in this subject.

Second Year.

1. **English Composition.**
2. **Latin.**
3. **Mathematics (algebra, geometry and spherical trigonometry, supplemented by the course on statics and dynamics). Students who have taken advanced mathematics in the first year may substitute advanced mathematics of the second year for the ordinary mathematics of that year, but they must take spherical trigonometry, statics and dynamics.**
4. **French or German.**
5. **The modern language not selected under No. 4 (if studied in the first year), *or* English, *or* economics and history *or* logic and psychology.**

Third Year.

1. **English Composition.**
2. **Physics.**
3. Any two of the following :—
   English, Latin, French, German, Philosophy, History, Economics (if taken in the second year), Political Science.

The degree of B.A. will be conferred on double course students in Arts and Applied Science on the completion of the prescribed work in Arts and the work of the second year in Applied Science.

ARTS AND MEDICINE AND ARTS AND DENTISTRY.

Students who wish to obtain the degrees of B.A. and M.D., in seven years, or of B.A. and D.D.S., in six years, will take two years in the Faculty of Arts and during the remaining four or five years (as the case may be) will work entirely in the Faculty of Medicine. The courses which such students are required to take in the Faculty of Arts are as follows:—

First Year.

English.
History.
Mathematics.
Latin or Greek
Any two additional Languages.

Second Year.

English Composition.
Latin.
Any three of the remaining subjects (see page 87), chemistry and biology excepted.

The degree of B.A. will be conferred on double course students in Arts and Medicine on the completion of the prescribed work in Arts and of the second year in Medicine.

B. Sc. AND M.D.

For particulars of this course, see page 95.

ARTS AND LAW.

Undergraduates who desire to qualify for the degrees of B.A. and B.C.L. in six years shall follow the course prescribed for the B.A. degree, except that Roman law and constitutional law (half-course) must be taken.

ARTS AND THEOLOGY.

Students who are pursuing a double course in Arts and Divinity (six years at least) will take in the third and fourth years the courses which constitute the ordinary curriculum in Arts, less a half-course in each of these years, or a whole course in either.

COURSES OF LECTURES IN ARTS.

DEPARTMENT OF CLASSICS.

PROFESSORS:—W. PETERSON. JOHN MACNAUGHTON. S. B. SLACK.

ASSOCIATE PROFESSOR:—H. J. ROSE.

LECTURER:—A. M. THOMPSON.

SESSIONAL LECTURER AND TUTOR (ROYAL VICTORIA COLLEGE):—ELIZABETH A. IRWIN.

Greek.

ORDINARY COURSES.

All students taking Greek are expected to provide themselves with a grammar, a Greek-English dictionary, a classical dictionary and an Atlas of ancient geography. The following are recommended:—

Allen's Elementary Greek Grammar; Liddell and Scott's Greek Lexicon (abridged, or intermediate); "Everyman" Classical Atlas (Dent); Smith's Smaller Classical Dictionary ("Everyman" Series, Dent).

First Year.

1. Lectures, four hours a week.

White's First Greek Book (Ginn & Company); Passages for Greek Translation (Peacock & Bell, Macmillan). Students who have not yet begun the study of Greek may take this course. It will not be necessary therefore to have passed the matriculation examination in Greek. Those students, who have shown that they are capable of more advanced work, will take the course prescribed for students of the second year. For students of the first and second years who possess the requisite attainments, a special advanced class will be formed.

N.B.—Students who do not pass a satisfactory examination in the work of the first year, will be required to attend a tutorial class during May and June, unless exempted for some special reason. Dr. Thompson.

Advanced Section.—Aristophanes, Clouds (Merry, Clarendon Press).

Second Year.

2. Lectures, four hours a week.

AUTHORS: *Summer Reading.*—Greek History, 479 to 403 B.C. Book recommended: Bury, History of Greece (Macmillan, 8s. 6d. edition), chs. VIII to XI. *Lectures.*—Lysias, Speeches, X, XII, XIII (Lysias, Orations, Shuckburgh, Macmillan).

COMPOSITION: North and Hillard (Rivingtons).

TRANSLATION AT SIGHT: Peacock and Bell's Passages for Greek Translation (Macmillan's Elementary Classics).

Advanced Section.—Students will take the whole or a portion of the ordinary course, together with the additional work stated above. (See first year, Advanced Section.)

Prof. Slack.

Third and Fourth Years.

3. Lectures, four hours a week.

AUTHORS: *Summer Reading.*—Greek History from 404-323 B.C. (Bury's History of Greece, chs. 12 to 18 inclusive, Macmillan, 8s. 6d. edition). *Lectures.*—Demosthenes, Philippic II, Chersonesus, Philippic III (Sandys, Macmillan); Euripides, Phœnissæ (with notes by Paley, Bell). The lectures will include a course of twelve hours dealing with some period of Greek history or literature or with some aspect of Greek life or thought.

COMPOSITION: North and Hillard's Greek Prose Composition for Schools (Rivingtons).

TRANSLATION AT SIGHT: Fowler's Sportella (Longmans).

Prof. Slack.

HONOUR COURSES.

Third and Fourth Years.

4. Honour students of the third and fourth years will take the work of the ordinary course, together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on page 90), together with four hours a week of additional lectures.

They are recommended to study during the summer vacation the books set down under the head of Private Readings. The additional work for 1915-16 will be as follows:—

AUTHORS: *Private Readings,* third and fourth years.—Isokrates, Panegyricus (Sandys, Rivingtons); Homer, Iliad XXIV (Edwards, Pitt Press). Fourth year only.—Euripides, Herakleidai (Pearson, Cambridge Univ. Press). *Lectures.*—Plato, Euthyphron (Adams, Pitt Press); Aeschylus, Agamemnon (Sidgwick, Clarendon Press).

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

Prof. Macnaughton.

COMPARATIVE PHILOLOGY: 48 lectures (see page 107). This course, if taken, will be reckoned as forming part of the third and fourth year honour course in Greek and Latin together. Book recommended: Max Niedermann, Précis de phonétique historique du latin, Paris, libr. Klincksieck.

BRITISH SCHOOL OF CLASSICAL STUDIES IN ATHENS.

McGill University is a contributor to the support of this School, which affords facilities for archæological and classical investigation in Greece. Graduates in Arts of McGill University are accordingly entitled to special privileges and advantages as regards tuition in the School.

Latin.

ORDINARY COURSES.

All students taking Latin are expected to provide themselves with a grammar, a Latin-English dictionary, a classical dictionary and an Atlas of Ancient Geography. The following are recommended:—New Latin Grammar by Sonnenschein (Clarendon Press, 1912; N.B. Note the exact title); Lewis' School Dictionary, *or* White's Junior Students' Latin-English Dictionary; "Everyman" Classical Atlas (Dent); Smith's Smaller Classical Dictionary ("Everyman" Series, Dent).

First Year.

1. Lectures, four hours a week.

AUTHORS: Winbolt and Merk, Roman Life Reader (Constable, pp. 20-63; Tibullus, Selections (Dobson, Arnold's Latin Texts). Prof. Macnaughton.

COMPOSITION: Latin Composition (Mitchell, Macmillan's Canadian School Series).

TRANSLATION AT SIGHT: Rivingtons' Class Books of Latin Unseens, Book III.

ROMAN HISTORY: Outlines, to 133 B.C. Book recommended, Botsford, History of Rome (Macmillan), chs. I to VI.

N.B.—All students will be examined in this subject.

Prof. Rose and Dr. Thompson (McGill College), Prof. Macnaughton (R.V.C.).

GRAMMAR: New Latin Grammar by Sonnenschein (Clarendon Press, 1912; note the exact title), pp. 178-211.

Advanced Section.—Cicero, Letters (Correspondence of Cicero, Kirtland, American Book Company); Prose and Unseen Translation. Two hours a week. Prof. Rose and Dr. Thompson.

Second Year.

2. Lectures, four hours a week.

AUTHORS: *Summer Reading*:—Roman History, Outlines, from 133 B.C. to 337 A.D. Book recommended: Botsford, History of Rome (Macmillan), chs. VII. to XII. N.B.—All students will be examined in this subject. *Lectures.*—Sallust, Catiline (Summers, Camb. University Press); Virgil, Aeneid IV (Sidgwick, Camb. University Press). Prof. Rose and Dr. Thompson.

COMPOSITION: Easy Latin Prose Exercises (Heatley, Longmans).

TRANSLATION AT SIGHT: Latin Passages (Alford, Macmillan).

Prof. Slack (McGill and R.V.C.).

GRAMMAR: New Latin Grammar by Sonnenschein (Clarendon Press, 1912. N.B.—Note the exact title), pages 123-178.

Advanced Section.—As in first year.

Third and Fourth Years.

3. Lectures, four hours a week.

AUTHORS: *Summer Reading.*—(Third Year), Plutarch, Lives of Cæsar, Pompey, Cato the Younger, Cicero. (The translation in Dent's "Everyman" Series is recommended.) (Fourth Year).—Same, with the addition of the Lives of Brutus and Antony. *Lectures.*—Lucretius, Book V (Duff, Pitt Press); Plautus, Captivi (Lindsay, smaller edition, Clarendon Press).

Two courses of twelve lectures each on Roman history, antiquities, literature or religion.

COMPOSITION: Latin Prose Based on Cæsar (Bryans, Macmillan).

TRANSLATION AT SIGHT: Rivingtons' Class Books of Latin Unseens, Book XII. Prof. Rose.

HONOUR COURSES.

Third and Fourth Years.

4. Honour students of the third and fourth years will take the work of the ordinary course together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on page 90), together with four hours a week of additional lectures. They are recommended to study during the summer vacation the books set down under the head of Private Readings. The additional work for 1915-1916 will be as follows—

AUTHORS: *Private Readings* (third and fourth years).—Cicero, De Oratore I (Wilkins, Clarendon Press, Oxford Classical Texts). Fourth year only.—Terence, Adelphœ, Phormio (Ashmore's edition, Oxford, 1908).

Lectures: Horace, Satires, Book II (Palmer, Macmillan); Cicero, Pro Plancio (Holden, Cambridge University Press).

COMPOSITION: Nixon's Prose Extracts for Translation into English and Latin (Nixon, Macmillan).

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

Prof. Rose and Dr. Thompson.

COMPARATIVE PHILOLOGY: 48 lectures (see page 107). This course, if taken, will be reckoned as forming part of the third and fourth year honour course in Latin and Greek together. Book recommended, see page 103.

BRITISH SCHOOL OF CLASSICAL STUDIES AT ROME.

McGill University is a contributor to the support of this School, which affords facilities for archæological and classical investigation at Rome. Graduates in Arts of McGill University are accordingly entitled to special advantages as regards tuition in the School.

Sanskrit.

The two courses in Sanskrit are primarily intended for students who have passed the second year sessional examination, but permission may in certain other cases be obtained to attend the elementary course.

1. (a) For beginners. The work mainly consists in the mastering of the elements of Sanskrit grammar with such composition as tends to fix in the mind the knowledge thus acquired. Etymological references will be frequently made and comparisons suggested in order to make the language interesting and give it an educational value in spite of the elementary nature of the course. This course counts as a half-course qualifying for the degree, and it is especially recommended to students attending the half-course in Comparative Philology. Two hours a week.

1. (b) For those students who have already passed through course (a) or its equivalent in Sanskrit preparation. One hour per week is devoted to lectures on Indian literature, commencing with the Post-Vedic period; two hours are devoted to reading selections; and one hour to grammar and composition, bearing especially on the texts read. Course (b) counts as one full course to the final; courses (a) and (b) together, one and one-half, the student taking up course (b) not being

debarred thereby from repeating a course in another department. Four hours a week.

Books required:—Perry, Sanskrit Primer; Whitney's Sanskrit Grammar; Lanman's Sanskrit Reader (Ginn & Co.). For reference: Sanskrit Literature, by A. A. Macdonell (Heinemann).

Summer Readings.—A course of summer readings will be suggested according to individual needs. During the months of May and June the lecturer will be glad to give his personal supervision to students of Sanskrit and is prepared to give lectures if due notice is given.

Comparative Philology.

LECTURER:—S. B. SLACK.

A. The first part of the course on Comparative Philology will deal with the following subjects:—The history of the science of Comparative Philology; the Indo-Germanic languages and their classification and relation to one another; the primitive home and culture of the so-called Aryan people; the nature of compounds in Indo-Germanic; recent theories about ablaut and its relation to the Indo-Germanic system of accentuation; the importance of ablaut in explaining apparent irregularities of declension and conjugation; external Sandhi in the Indo-Germanic languages; and the influence of analogy and contamination in the formation of words. The lectures will then go on to discuss the various sounds of the primitive Indo-Germanic language, and the development of those sounds in the various languages of the Indo-Germanic family.

B. After Christmas, special attention will be devoted to the comparative grammar of Greek and Latin. This part of the course will be especially useful to classical honour students. At the same time students who desire to make a special study of Comparative Philology are recommended to take this course in addition to course A mentioned above.

Two hours a week.

DEPARTMENT OF ENGLISH.

PROFESSOR:—CHAS. E. MOYSE.
PROFESSOR OF COMPARATIVE LITERATURE AND ASSOCIATE PROFESSOR OF ENGLISH:—P. T. LAFLEUR.
ASSISTANT PROFESSORS:—SUSAN E. CAMERON. CYRUS MACMILLAN.
LECTURER:—G. W. LATHAM.

ORDINARY COURSES.

First Year.

1. A. ENGLISH COMPOSITION.—The course will be of a practical character. Regular essays are required of all students. One hour a week. Men, Monday, 12; women, Monday, 9 a.m. (R.V.C.). Mr. Latham.

1. B. ENGLISH LITERATURE.—A general outline course of forty-eight lectures from Anglo-Saxon times to the present. Readings announced at the opening of the session. Conferences. Two hours a week. Men, Tuesday and Thursday, 12, Dr. Macmillan; women, Miss Cameron.

Second Year.

2. A. LITERATURE.—*English prose from Bacon to Burke.* Three hours a week before Christmas, with the following special readings:—Bacon: Essays of Truth, of Unity in Religion, of Revenge, of Atheism, of Travel, of Friendship, of Plantations, of Building, of Studies; Browne: Religio Medici; Milton: Areopagitica; Defoe: A Journal of the Plague Year; Swift: A Tale of a Tub; Steele and Addison: The Tatler and the Spectator, *passim;* Goldsmith: The Citizen of the World. Craik's Prose Specimens and Chambers's Cyclopædia of English literature (new edition) may also be used.

English Prose in the Nineteenth Century. Three hours a week after Christmas. The course is a continuation of that followed in the first term and will include representative prose writers from Jeffrey to Leslie Stephen. Readings: Lamb: Essays of Elia; DeQuincy: The English Mail-Coach, Levana and the Three Ladies of Sorrow, A Spanish Military Nun;

Carlyle: Essays on Burns, Heroes and Hero-Worship, other selections to be specified; Ruskin; Sesame and Lilies; Arnold: Essays in Criticism, Second Series. Three hours a week. Men, Tuesday, Wednesday, Thursday, 9 a.m.; women (R.V.C.), Monday, Thursday, Friday, 3 p.m. Prof. Lafleur, Miss Cameron and Dr. Macmillan.

2. B. COMPOSITION.—Continuation of 1 A.

Fortnightly essays will be required and will be taken into account in determining the standing of students at the end of the session. One hour a week. Men, Monday, 9 a.m., Dr. Macmillan; women, Tuesday, 3 p.m., Miss Cameron.

This course is obligatory on all second year students.

Third Year.

3. A. ENGLISH LITERATURE.—Pre-Shaksperian Drama and Shakspere.—This course will begin with a review of the early history of the English drama, as it passes through the stages of the Liturgical Play, the Miracle Play, the Moral Play and the Interlude. The advances made by the earlier Elizabethan dramatists such as Lyly and Marlowe will be noted, and Shakspere's methods illustrated by a comparative study of A Midsummer Night's Dream, Romeo and Juliet, Henry V, As You Like It, Hamlet, King Lear, Macbeth, and The Tempest; the relation of these plays to their sources will also be considered. Two hours a week. Monday and Thursday, 4 p.m. Dr. Moyse.

Books of Reference and Authorities:—These will be given at the beginning of the course. Among them may be mentioned, "Growth of the Drama," by G. E. and W. H. Hadow (Oxford Treasury of English Lit., vol. II; Clarendon Press).

[The editions of separate plays published by Dent (Temple Shakspere) or Macmillan will be found convenient.]

3. B. SHAKSPERE.—A detailed study in class of a number of Shakspere's plays, with special reference to Elizabethan English and atmosphere. The plays studied vary in alternate years. Henry V, Romeo and Juliet, Hamlet, Othello, Antony and Cleopatra, The Winter's Tale, and a comedy are read one

year; and the next, Henry IV, Part I, Henry IV, Part II, Julius Cæsar, Macbeth, King Lear, The Tempest, and The Merchant of Venice. The second of these courses will be given in 1915-16.

Two hours a week. Tuesday and Thursday, at 11 a.m. Dr. Macmillan.

3. C. Poetry and the Drama, from 1660 to 1789, with special and detailed reference to changes in literary ideals and expression during the period discussed. The disintegration of older literary forms, the creation of new forms, and the conflict of temper in the writers of the period will be studied. The works of Dryden as eminently characteristic of the earlier period will be given especial attention, and the rise of forces antagonistic to the older period will be followed,—the growth of Romanticism, the revolutionary attitude towards the individual, towards society and towards nature. The lectures will include poets, from Dryden to Blake, and dramatists from the writers of heroic plays to Sheridan.

Two hours a week. Monday and Wednesday, at 11 a.m. Dr. Macmillan.

3. D. The Forms of Public Address, Argumentation and Debating.—The purpose of this course is, by lectures, class-room work and writing, to study carefully the forms of public address; to provide training in argument and persuasion, and to emphasize the importance of style in public discourse. Each student will draw at least two briefs and will write four manuscripts of at least 2,000 words each, two of which shall be arguments. He will debate at least three times (after thorough preparation), and will speak several times from the floor.

Regular individual conferences with the instructors are required.

This course is open to students of the third and fourth years. It may also be taken by properly qualified partial students.

Two consecutive hours a week. Mr. Latham and Dr. Macmillan.

Fourth Year.

4. A. THE LEADING POETS OF THE NINETEENTH CENTURY.—The chief aspects of the French Revolution will be considered, and republican feeling in England illustrated chiefly from the works of Wordsworth, Coleridge and Southey. The revolutionary poets, Byron and Shelley, will then be considered, and their typical poems, together with those of the poets already mentioned, critically examined. The remainder of the course will be given to Scott, Keats [Macmillan], Tennyson [Macmillan], Browning, Matthew Arnold and Swinburne.

The poems which have been selected for private reading will be announced at the commencement of the session. *Text*: Page's British Poets of the Nineteenth Century (Sanborn, Boston) will be found useful. Two hours a week. Tuesday and Friday, 4 p.m. Prof. Lafleur and Miss Cameron.

4. B. THE HISTORY OF ENGLISH PROSE FICTION.—This course covers the period from Richardson to the middle of the nineteenth century, and treats of the various forms successively given to English novels during this time, and the influences that stimulated or otherwise affected such productions. While students are expected to show particular knowledge of English masterpieces in this kind, frequent reference to cognate works by continental writers will also demand some familiarity with contemporary European literature. Portions of the following works will be selected for detailed study and discussion: Richardson, Clarissa; Fielding, Amelia; Goldsmith, The Vicar of Wakefield; Godwin, Caleb Williams; Walpole, The Castle of Otranto. A knowledge of leading English fiction of the nineteenth century is desirable, special importance being attached to a general knowledge of the works of Scott, Dickens and Thackeray. *Books of reference*:—Raleigh, The English Novel; Dunlop, History of Fiction; Cross, The Development of the English Novel. Two hours a week. Monday and Friday, 11 a.m. Prof. Lafleur.

4. C. THE DRAMA, from Shakspere to the closing of the theatres (1590-1642). The purpose of this course is two-

fold—to study Shakspere as a dramatist and to trace the development of the English drama from Shakspere to 1642. The greater number of the plays of Shakspere are read. They are carefully examined to show the debt of Shakspere to his own and earlier times and his growth as a poet and dramatist. The development of the drama is then traced through the plays of Jonson, Dekker, Chapman, Heywood, Beaumont and Fletcher, Middleton, Webster, Ford, Massinger, Shirley and Brome, to the Commonwealth. The course is a continuation of 3A, and it is highly desirable, although not required, that students who select 4C should take, or should have taken 3A and 3B. Monday and Wednesday at 12. Dr. Macmillan.

4. D. Literary Criticism.—Methods and principles of criticism, applied chiefly to imaginative and creative literature. Two hours a week. Wednesday and Thursday, 11 a.m. Prof. Lafleur.

Honour Courses.

Third Year.

In addition to the ordinary work of the third year, honour students will take course 5, together with courses 9, 10, 11, and 13.

5. English Language.—Two hours a week. Sweet, Anglo-Saxon Reader, Extracts (all the Prose), Wright, Old English Grammar (Oxford University Press). (The examination in Anglo-Saxon will cover the ground stated, even if the work has not been completed in class.) Mr. Latham.

Fourth Year.

Honour students in the fourth year will select language or literature.

Language students will take the following special courses in addition to 4A, 4B, and 4C:—

6. Anglo-Saxon.—The whole of Béowulf will be read in class and illustrated by notes on origins, philology and textual emendations. *Text-book*: Wyatt's Béowulf (Ginn). Students will read selected portions of other poems for examination. Anglo-Saxon prose will be studied mainly in the

translation of Gregory's Pastoral Care and Ælfric's Homilies. Students will be guided in the examination of dialectical texts and referred to important articles in periodical literature dealing with that subject and also with the field of Anglo-Saxon generally. Dr. Moyse and Mr. Latham.

7. MIDDLE ENGLISH. — The course is intended to give a knowledge of dialectical English and to illustrate the changes the language has undergone. The texts given in Morris's Specimens of Early English, Part I, and Morris and Skeat's Specimens of Early English, Part II, may be regarded as the chief material for study. A list of books of reference and of important monographs will be given at the commencement of the course. Two hours a week. Dr. Moyse. (Omitted in 1915-16.)

8. MŒSO-GOTHIC.—The course on Mœso-Gothic is intended to open the way to the comparative study of allied Teutonic languages. Particular attention will be given to the phonological relations of Mœso-Gothic and Anglo-Saxon. *Text-books*: Wright, Primer of the Gothic Language, The Gospel of St. Mark; Ulfilas (Heyne).

Honour students selecting literature will take the following, in addition to the ordinary work of the fourth year, and two hours a week in language (Anglo-Saxon and Mœso-Gothic):—Sweet, Anglo-Saxon Reader, Extracts (all the verse); Wright, Primer of the Gothic Language, The Gospel of St. Mark (Clarendon Press).

9. CHAUCER. — A sketch of Chaucer's characteristics and literary influence. The following works are chosen for special study:—Canterbury Tales; Prologue, Knightes Tale, Nonne Prestes Tale; Parlement of Foules; Hous of Fame [Skeat's Chaucer]; Piers the Plowman (Clarendon Press). Works to be consulted or read: Pollard's Chaucer Primer (Macmillan); Lounsbury, Studies in Chaucer; Jusserand's English Wayfaring Life; Snell, The Fourteenth Century. One hour a week. Mr. Latham.

10. PROSE WRITERS BEFORE DRYDEN.—The main object of the course will be to discuss the chief literary influences

visible in the Pre-Restoration writers of English prose and to examine characteristics of style. The subject will be treated chronologically. As the course is largely interpretative and critical, facts of biography will be used only when they illustrate points of moment. Students will read the following works for examination: More, Utopia (Arber's reprint, or Temple Edition); Sidney, Apologie for Poetry (Ed. Cook, Ginn & Co., or Shuckburgh, Cambridge University Press); Lodge, Rosalynd (Newnes, Caxton Series); Bacon, New Atlantis; Earle, Microcosmographie (Temple Ed.); Milton, Areopagitica (Ed. Hales, Clarendon Press).

Two hours a week. Miss Cameron. (Omitted in 1915-16.)

11. SPENSER AND MILTON. — This course is intended to show the literary relations of Spenser and Milton to their time, and to treat with special prominence the following works:—Spenser: The Shepheard's Calendar, Mother Hubbard's Tale, Colin Clout's Come Home Again, Faerie Queene (Selections), Fowre Hymnes; Milton: Shorter Poems, Paradise Lost (Selections), Samson Agonistes.

One hour a week. Miss Cameron. (Omitted in 1915-16.)

12. COMPARATIVE LITERATURE.—A course of lectures on the influence of English literature upon the Continent of Europe, chiefly during the eighteenth and nineteenth centuries. The treatment discusses mainly the historical development of ideas, but examines also corresponding modifications regarding literary method and form.

Voltaire, Letters Concerning the English Nation; Elton, The Augustan Age; Texte, Jean Jacques Rousseau and the Cosmopolitan Spirit in Literature (trans. Matthews); Brunetière, L'Evolution des Genres. Two hours a week. Prof. Lafleur.

13. COMPARATIVE LITERATURE. — Memoirs and memoir writers. A course on the best-known and most characteristic works in this kind, beginning with Philippe de Commines. Details to be announced at the opening of the session. Prof. Lafleur.

14. Comparative Methods in Literary Study.—A course of lectures setting forth the chief tendencies manifested in contemporary criticism, and here applied to the examination of important literary relations between the Continent of Europe and England through the works of Montaigne, Voltaire, Rousseau, LeSage, etc., with ample reference to the literature of Germany, Spain and Italy, in corresponding manner. Two hours a week. Prof. Lafleur. (Omitted in 1915-16.)

15. English Prose from Dryden to Burke.—Details and readings to be announced at the beginning of the session. Prof. Lafleur.

16. American and Canadian Literature.—A historical and critical outline of English literature in the new world. Two hours a week. Miss Cameron.

17. Tennyson (Continuation) and Minor Poets of the Nineteenth Century.

For examination: In Memoriam, Maud and the Idylls of the King. Readings from minor poets will be announced at the beginning of the session. For In Memoriam the edition published by Macmillan will be found useful. Two hours a week. Dr. Moyse.

Any of the above honour courses may be taken as an ordinary course with the approval of the Faculty, provided that the time-table allows of such substitution.

The English requirements for the honour courses in English and Latin, English and French and English and German are as follows:—

Third Year.—Lecture course 5 and three other courses chosen from 9, 10, 11, 14.

Fourth Year.—Two hours per week of language and three of the courses enumerated above which have not been taken in the third year.

In the honour course in English and history, third and fourth years, students may choose each year from the programme for the third and fourth years any courses aggregating six hours a week.

In the English and philosophy honour course, English may be taken as the major, or the minor, or half the course, the first amounting to eight hours a week, the second to four hours and the third to six hours.

Graduate Courses.

Candidates for the degree of M.A. in the Department of English shall take three full courses, or six half courses, amounting to twelve hours a week. Of these, courses amounting to at least six hours a week shall be selected from the list given below primarily for graduate students; the remaining courses may be selected from the honour or ordinary courses of the third or the fourth year, if the courses chosen or their equivalents have not already been taken by the candidate.

Candidates who take English as the major subject of the M.A. course shall take courses amounting to eight hours a week in the Department of English, and of these, courses amounting to six hours a week shall be selected from the list primarily for graduate students.

Candidates who take English as the minor subject, shall take courses amounting to four hours a week in the Department of English. These courses may be selected from the ordinary and honour courses of the third and fourth years, not already taken by the candidate.

The following graduate courses will be offered as required:

G. 1. Anglo-Saxon.—A course in Anglo-Saxon Literature, together with readings of the more difficult texts, and the discussion of subjects assigned for investigation. Anglo-Saxon scansion will form part of the course if it has not been previously mastered.

Two hours a week. Dr. Moyse.

G. 2. Germanic Philology.—A course in Germanic Philology intended to open the way to the comparative study of the Teutonic languages, and laying especial stress on Mœso-Gothic and Anglo-Saxon. Two hours a week. Dr. Moyse.

G. 3. COMPARATIVE LITERATURE. — *Memoirs and Memoir Writers.* A course on the best-known and most characteristic works in this kind, beginning with Philippe de Commines.

Two hours a week. Prof. Lafleur.

G. 4. COMPARATIVE LITERATURE. — *Epistolary Literature.* Details to be announced.

Two hours a week. Prof. Lafleur.

G. 5. COMPARATIVE LITERATURE.—*The Philosophical Poets.* Details to be announced.

Two hours a week. Prof. Lafleur.

G. 6. THE DRAMA IN ENGLAND FROM 1642 TO 1900.—The relation of the drama of 1660-1700 to the drama of 1625-42; the development of the Heroic Drama, the sentimental comedy, the ethical drama of the 18th century; the ballad opera; the closet drama of Coleridge, Browning, Swinburne and Tennyson; the growth of melodrama and farce and their influence on the dramatic writing of to-day; and the place of Shakspere on the English stage from 1642 to 1900.

Two hours a week. Dr. Macmillan.

G. 7. CHAUCER.—Open only to those who already have some acquaintance with the author.

Two hours a week. Mr. Latham.

For further requirements of the M.A. degree, see page 350.

In special cases and with the consent of the Department, candidates may count honour courses 6, 7, 8, 12, 14, as graduate courses, if these courses, or their equivalent, have not already been taken. This applies particularly to students from other universities.

DEPARTMENT OF MODERN LANGUAGES.

PROFESSOR:—HERMANN WALTER.
ASSOCIATE PROFESSOR:—R. DU ROURE.
ASSISTANT PROFESSORS:— J. L. MORIN. E. T. LAMBERT.
LECTURER IN FRENCH (ROYAL VICTORIA COLLEGE):—MISS G. GRÉTERIN.
LECTURER IN GERMAN:—MISS IDA COUTURE.
SESSIONAL LECTURER IN FRENCH:—P. VILLARD.

A.—French.

Owing to the position which this University occupies in the midst of a very large French-speaking population, there is a permanent demand for courses of a practical, conversational character. The Department profits by the co-operation of French church services, French newspapers, French theatres, French literary clubs, and public lecture courses in the French language.

In drawing up the following courses endeavours have been made not only to provide for the maintenance of academic methods, but also to meet the special needs of the professional men of the Province of Quebec, every student being given the opportunity to learn to speak French. In the first and second years the French language is largely used in class instruction. In the third and fourth years all lectures are given and all studies carried on in French.

Honours may be taken in French and German together or in Latin and French or in Latin and German, as well as in English and French or in English and German.

ORDINARY COURSES.

First Year.

1. Vreeland & Koren, French Syntax and Composition (Holt); Super, Histoire de France (Holt); Maupassant, Huit Contes Choisis (Heath).

2. Lemaître, Contes extraits de Myrrha (Heath); Scribe et Legouvé, Bataille de dames (Heath); Daudet, Le Petit Chose (Heath); Lamartine, Scènes de la Révolution française (Heath); Milhau, Choix de poésies (Le Meunier, son Fils et

l'Ane, Les Animaux malades de la Peste, La Chanson du Vannier, Les Yeux, La Chanson de Fortunio).

B.Sc. Course: Bowen, A First Scientific French Reader (Heath).

Advanced Section (in place of course 2):—Thiers, Expédition de Bonaparte en Egypte (Holt); Balzac, Cinq Scènes de la Vie Humaine (Heath); Molière, Le Bourgeois gentilhomme (A. B. Co.); Racine, Andromaque (Heath); Milhau, Choix de poésies (Renouf).

Four hours weekly, two for each course.

Second Year.

Summer Readings, for students entering on their second year:—Hugo, Quatre-Vingt-Treize (Heath); Corneille, Cinna (Holt).

The examination on summer readings will be held in the first week of the session.

Sessional Lectures:—

3. Vreeland and Koren, French Syntax and Composition (Holt); Corneille, Horace (Heath); Vigny, Cinq-Mars (Heath); Elementary Historical French Grammar.

4. Michelet, Histoire de France (Heath); Molière, L'Avare (A. B. Co.); Racine, Esther (Heath); Mansion, Esquisse de la Litterature française (McDougall & Co.), pp. 62-155.

Private Readings: Sand, La Mare au Diable (Heath); Beaumarchais, Le Barbier de Séville (Heath).

Four hours weekly, two for each course.

The examination on private readings will be held in December and at the end of the session.

Commercial Course: Janau, Commercial French Correspondence (Longmans).

Advanced Section (in place of course 4): Molière, Les Femmes Savantes (Heath); Racine, Andromaque; Lesage, Gil Blas (Heath); Beaumarchais, Le Barbier de Séville (Macmillan); The Oxford Book of French Verse; Mansion, Esquisse de la Litterature Française, XVIIth and XVIIIth Century.

Third and Fourth Years.

The courses will consist mainly in the study of French literature and advanced prose composition.

Summer Readings for students entering on the third or fourth year:—Racine, Britannicus; Molière, L'Avare.

The examination on summer readings will be held in the first week of the session.

Sessional Lectures:—

5. For 1915-16:—LITERATURE, in the XVIIth and XIXth centuries. Lesage, Gil Blas (Heath & Co.); Marivaux, Le Jeu de l'Amour et du Hasard; Buffon, Discours sur le Style; Diderot, Selections (Heath); Sedaine, Le Philosophe sans le savoir; J. J. Rousseau, Selections; Voltaire, Zäire.

Victor Hugo, Ruy Blas; Musset, Selections (Ginn & Co.); Balzac, Eugénie Grandet; A. Chénier, Chefs-d'œuvre lyriques (Gowan's Internat. Library); Flaubert, Trois Contes; Modern French Lyrics (Heath); Dumas, L'Etrangère; Doumic, Histoire de la Littérature Française.

PROSE COMPOSITION:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall & Co., London).

N.B.—In order to be admitted to the third year French a student must know French well enough to take lectures delivered in French and express himself in French with some fluency and correctness.

Four hours weekly.

HONOUR COURSES.

Third and Fourth Years.

In order to obtain honours, candidates must be able to speak French fluently.

6. MEDIÆVAL FRENCH LITERATURE AND PHILOLOGY (1915-16):—Darmsteter's Cours de Grammaire Historique, parts I and II, and Bartsch, Chrestomathie de l'Ancien Français. Three hours weekly.

7. COMPOSITION:—Nicholson and Brennan, Passages for Translation into French and German (Oxford University Press). One hour weekly.

8. FRENCH PHONETICS:—A course for students who intend to become teachers of French.

N.B.—Before entering on their fourth year course, honour students are expected to have read the following:—Corneille, Le Cid, Horace, Cinna, Polyeucte; Racine, Andromaque, Britannicus, Phèdre, Athalie; Molière, Ecole des Femmes Misanthrope, Tartuffe, Le Bourgeois Gentilhomme, Les Femmes Savantes; Boileau, L'Art Poétique; except when any of these texts are part of the readings prescribed for the ordinary course in the fourth year.

M.A. COURSES (not given in Session 1915-16).

1. COMPARATIVE LITERATURE (English Section, Course 14). Two hours weekly.

2. Versification, histoire et technique. One hour.

3. Le mouvement réaliste dans la seconde moitié du XIXe siècle. Two hours.

4. Histoire de la langue depuis le XVIe siècle. One hour.

5. Histoire de la Comédie en France. Two hours.

6. Exercices pratiques. One hour.

Candidates taking French only will take all the above courses; those taking French as a major along with another subject as a minor will omit 1 and either 2 or 4; those taking French as a minor will take either 3 or 5 and one of the one-hour courses.

Candidates who have not taken French Philology in their undergraduate course must take it as part of their M.A. course, except when French is taken as a minor. For further M.A. requirements, see page 350.

B.—German.

ORDINARY COURSES.

Beginners' Course.

1. Van der Smissen und Fraser, High School German Grammar (Copp, Clark Co.); Müller and Wenckebach, Glück Auf (Ginn); Nichols, Easy German Reader (Holt).

Four hours weekly.

Students intending to proceed to the second year will be required to take a supplemental examination in September (for which no fee will be charged) covering the rest of the grammar and the texts prescribed for the summer readings of the second year (see below). Arrangements will be made by which students will be enabled to do this work by correspondence. This examination will take the place of the summer readings examination.

First Year.

2. Van der Smissen und Fraser, High School German Grammar (Copp, Clark Co.); Moscher, Wilkommen in Deutschland (Heath); Baker's German Stories (Holt); Freytag, Die Journalisten (Ginn); Collmann, Easy German Poetry (Ginn); Horning, German Composition.

Four hours weekly.

Second Year.

Summer Readings, for students entering on their second year: Riehl, Die vierzehn Nothelfer (A. B. Co.); Moser, Der Bibliothekar (Heath); Schrakamp, Ernstes und Heiteres (A. B. Co.).

The examination on summer readings will be held in the first week of the session.

3. *Sessional Lectures.* — Horning, German Composition; Schiller, Jungfrau von Orleans (Holt); Scheffel, Trompeter von Säkkingen (Heath); Gœthe, Egmont (Ginn); Keller, Bilder aus der Deutschen Literatur (American Book Co., edition 1905).

Four hours weekly.

Third and Fourth Years.

Summer Readings, for students entering on their third or fourth year:—Grillparzer, Der Traum ein Leben (Heath); Stifter, Das Heidedorf (American Book Co.).

The examination on summer readings will be held in the first week of the session.

Sessional Lectures:—

4. For 1915-16:—Lessing, Nathan (American Book Co.); Gœthe, Iphigenie (Pitt Press); Schiller, Wallenstein's Tod; Hebbel, Agnes Bernauer (Oxford German Series); Keller, Zwei Novellen (Oxford German Series); History of Literature (Gœthe) and the Nineteenth Century (Kluge).

Prose Composition: Wiehr, Graded Exercises in German Prose Composition (Oxford Univ. Press).

Four hours weekly.

HONOUR COURSES.

Third and Fourth Years.

The German language alone is used in class instruction, and, in order to obtain honours, candidates must be able to speak German fluently.

5. Geschichte des deutschen Lustspiels.

Two hours weekly.

6. COMPOSITION:—Nicholson and Brennan, Passages for Translation into French and German (Oxford Univ. Press).

One hour weekly.

7. MEDIÆVAL LITERATURE AND PHILOLOGY.

For 1916-17:—A general outline of the development of the German language and a special study of the Middle High German period, its language and literature.

The following books will be used:—Bachmann, Mittelhochdeutsches Lesebuch (Fæsi and Beer, Zurich); Behaghel, Die deutsche Sprache.

Three hours weekly.

8. GERMAN PHONETICS:—A short course for students who intend to become teachers of German.

N.B.—Before entering on their fourth year course, honour students are expected to have read the following:—Lessing, Minna von Barnhelm or Nathan der Weise, Emilia Galotti; Schiller, Wilhelm Tell, Maria Stuart, Jungfrau von Orleans, Wallenstein, Ballads; Gœthe, Gœtz von Berichingen, Egmont, Hermann und Dorothea, Faust I, Poems; except when any of these texts are part of the readings prescribed for the ordinary course in the fourth year.

M.A. COURSES.

1. COMPARATIVE LITERATURE (see English section, course 14). Two hours weekly.
2. Gœthe's Faust. One hour.
3. Geschichte des deutschen Lustspiels. Two hours.
4. Die Lyrik im XIX. Jahrhundert. Two hours.
5. Schiller's Jugenddramen. One hour.
6. Praktische Ubungen. One hour.

Candidates taking German only will take all the above courses; those taking German as a major along with another subject as a minor will omit 1 and either 2 or 5; those taking German as a minor will take either 3 or 4 and one of the one-hour courses.

Candidates who have not taken German Philology in their undergraduate course must take it as part of their M.A. course, except when German is taken as a minor. For further M.A. requirements, see page 350.

DEPARTMENT OF ORIENTAL (SEMITIC) LANGUAGES AND LITERATURE.

PROFESSOR:—C. A. BRODIE BROCKWELL.
PROFESSOR OF HEBREW:—A. R. GORDON, D.Litt.
SESSIONAL LECTURER IN HELLENISTIC JEWISH LITERATURE:—G. ABBOTT-SMITH.

The courses in this Department are intended to provide undergraduates in the Faculty of Arts with an exact knowledge of a limited portion of Semitic literature and history, combined with a general perspective of the whole Semitic field, including some of the leading contributions of Eastern civilization to Western thought and culture; and also to enable those who have attained sufficient knowledge in the same to pursue in the graduate school in much fuller detail many of the more important and attractive problems connected with Semitic philology, ethics, history and civilization. While the honour courses have been constructed with due regard to the respective claims of philology, ethics, history and archæology for the purpose of providing a comprehensive, useful and attractive

form of mental training, they have also been carefully adapted to meet the needs of various students, *e.g.*, those who are especially interested in the Eastern sources of our own civilization; those who require a knowledge of Arabic, either as candidates for the Indian or Egyptian civil service or because they intend to engage in Eastern trade and commerce; as well as of theological students of all persuasions, whether destined to labour ultimately at home or in the Oriental field.

Since the real value of a training in the Semitic Department lies in the honour work of the third and fourth years, students are recommended to bear this in mind while taking the Hebrew of the second year, which is primarily intended to serve as a preparation for more advanced studies.

For honours, the student has a choice of one of four courses, to which he is required to devote the whole of his time, *i.e.*, either I, the combined Greek and Hebrew course; or II, the Hebrew; or III, the Arabic; or IV, the Aramaic and Syriac. In No. II the Hebrew language, in No. III the Arabic language and in No. IV the Aramaic language (including Syriac) forms the main linguistic study. Each of these three full honour courses includes at least three subjects: (1) an exact study of the principal language by which the course in question is designated; (2) a less detailed study of one additional language, and (3) a general knowledge of the history and literature connected with the principal language. In addition to these three subjects, a "fourth" or "additional subject" is strongly recommended for all those who seek first class honours.

In each of the honour courses, II, III and IV, an elementary knowledge of Semitic comparative philology is also required.

Though the ordinary Hebrew course of the second year is intended primarily as a preparation for honour work, ordinary courses are also provided for the third and fourth years, and students who have taken the Hebrew of the second and third years can either continue the same language in the fourth year or substitute either Arabic, or Aramaic and Syriac, sub-

ject to the possibility of arranging the time tables satisfactorily. Pointing in the different systems, sight translation and the writing of proses, grammar papers and essays form a marked feature of all the courses.

ORDINARY COURSES.

A. HEBREW TEXTS (1) Genesis XXIV, XL, XI, VIII, L, Ruth; (2) Genesis XLIX; Exodus XIV-XV; Deuteronomy V-X, XXII, XXXIII; Judges IV and V; Jeremiah XXXI; and Proverbs I-IX. (3) Selections from the Prophets. (4) Ezra IV, 8; VI, 18, and VII, 12-26; Esther; The Mishna Tract; Pirke Abôth; and Selections from Rashi's Commentary on Genesis.

B. SEMITIC HISTORY (brief outlines of), with reference to recently discovered documents.

C. TEXTUAL AND LITERARY CRITICISM, with special reference to the Biblical texts prescribed in A (1) (2) and (3).

D. ARABIC. The Arabic V.S. of Genesis I-XI; the Kur'an, Suras, I, LXI, LXXI, and CXIV, and Socin's Arabic Grammar, pp. 35 to 47.

E. ARAMAIC AND SYRIAC. The Aramaic portions of Ezra and Daniel; The Sermon on the Mount (Matt. 5-7) in the Peshitta and Curetonian V.S.S.; The Aramaic Sources and Sentences of the New Testament; and the Hymn of the Soul.

F. THE LITERATURE OF THE JEWISH HELLENISTS, with special reference to the Alexandrian Version. *Text*:—Selections from the Prophets.

Lectures:—

Second Year:—A (1) and B. Four hours weekly.

Third Year:—A (2) and C or A (3) and F. Four hours weekly.

Fourth Year:—A (3) continued or A (4), with either C or D or E or F. Four hours weekly.

HONOUR COURSES.

Third and Fourth Years.

I. Hebrew and Greek.

[For Greek, see page 102.]

The Hebrew subjects prescribed are the same as those in 1 and 2 of the full Hebrew honour course (No. II, below).

II. Hebrew.

1. HEBREW TEXTS:—

Third Year.

The Hexateuch, Judges, Samuel, Kings, Jonah, Micah, Ruth; Psalms, Book I, and Job, chapters 1-20. Six hours a week.

Fourth Year.

Isaiah, Jeremiah, Ezekiel, the remaining Minor Prophets, and Kethubim, excepting 1 and 2 Chron. Six hours a week.

2. HISTORY:—

Greek and Roman periods. One hour weekly.

3. ADDITIONAL LANGUAGE:—

At least one of the following:—

(1) *Arabic*:—The Arabic V.S. of Genesis I-XI; The Kuran, Suras I, LIII, LVII, LXI, LXXI, and CXIV; Muallakât, poem III; and pages 35 to 47 of Socin's Arabic Grammar and part of No. 30 in the Letters of Abu'Lala.

(2) *Aramaic*. The ordinary course E with the addition of Merx, pages 11 to 57 and 132 to 139; Psalm 1 to 20 in the Peshitto, and the Selections in Brockelmann's Syriac Grammar.

(3) *Phoenician*, including Punic and Neo-Punic:—All the inscriptions in this language given in G. A. Cooke's North Semitic Inscriptions.

(4) *Ethiopic*. Prætorius, pp. 31-45, and Du Chaine, pp. 228-244. Three hours weekly.

4. SPECIAL (OPTIONAL) SUBJECT:—

One only of the following:—

(1) *Semitic Archaeology,* including the history of the Hebrew alphabet from the earliest times up to 1100 A.D., a knowledge of the writing materials used, and all the inscriptions in Hebrew, Phœnician, Punic, Neo-Punic, Moabitish, Egyptian, Aramaic, Nabatæan and Palmyrene in G. A. Cooke's North Semitic Inscriptions, as well as Babelon's Manual of Oriental Antiquities.

(2) *The history of the composition of the Mishna and Talmud.*

(3) *Hebrew Poetry and Oratory.*

(4) *The principles of Higher Criticism and of Biblical Criticism in General.*

(5) *History of Jewish Literature from A.D. 70 to 1500.*

(6) *Hellenistic Jewish Literature.*

(7) *The social institutions, customs and myths, and general folklore of the Northern Semites embodied in Hebrew literature.*

(8) *Comparative Philology of the Semitic Languages.*

Two hours weekly.

Students who do not take an optional subject are required to do two extra proses a week.

N.B.—In the following honour courses the years and hours are the same.

III. Arabic.

1. ARABIC TEXTS:—

Third Year.

The Kuran, Suras, 1-3 and 25-100; Baidawi's Commentary (Sura, 3.1-50); The Muallakât, I, III, V.

Fourth Year.

The rest of the Kuran and of Baidawi on Sura, III; The Annals of Tabari, pp. 1-11, and the Prolegomena of Ibn Khaldûn.

2. HISTORY. General history of the Caliphate, with special reference to the Caliphs Abû Bakr, Omar, Othmân, Aly, Mansûr and Mustaasim.

3. ADDITIONAL LANGUAGE. One only of the following:—

(1) *Hebrew* as in the Ordinary Course A (1) and (2), (3) and (4).

(2) *Aramaic* as in the Ordinary Course E.

(3) *Phoenician* as in Hebrew Honour Course II.

(4) *Ethiopic* as in Hebrew Honour Course II.

4. SPECIAL (OPTIONAL) SUBJECT. One only of the following:—

(1) *Semitic Archaeology.* Including the history of the South Semitic and classical Arabic alphabets in Isaac Taylor's "The Alphabet," Vol. I. Chaps. V and VI, Hommel's Südarabisches Chrestomatie; Lidzbarski's Altnordarabisches I and II and Südarabische Iuschriften, both in Ephemeris fur Semitische Epigraphik; and Babelon's Manual of Oriental Antiquities.

(2) *Arabian contributions to Western civilization and culture.*

(3) *Arabic Poetry.*

(4) *The Structure, contents and ethics of the Kur'an.*

(5) *History of Arabic Literature in Huart's Arabic Literature and De Boer's Philosophy in Islam.*

(6) *Semitic social institutions, customs, and myths, and general folklore, with special reference to the Southern Semites.*

(7) *Comparative Philology of the Semitic Languages.*

IV. Aramaic.

1. ARAMAIC AND SYRIAC TEXTS:—

Third Year.

As in Ordinary Course E, and II Hebrew Honour Course 3 (2), with the addition of Onkelos on Genesis, Jonathan on Isaiah, 40-50. The Acts of Thomas.

Fourth Year.

Selections from Aphraates, Bardaisan, Julian the Apostate; Onkelos on Deuteronomy Petrus der Iberer, and E. Sachau's Aramaische Papyrus and Ostraker au seiner judischen Militär-Kolonie zu Elephantine.

2. HISTORY. The place of the Aramæans in history.

3. ADDITIONAL LANGUAGE. One only of the following:—

(1) *Arabic.* As in Ordinary Course D, with the addition of Suras 53, 57 and 71.

(2) *Hebrew.* As in Ordinary Course A (2), (3) and (4).

(3) *Phoenician.* As in II Hebrew Honour Course.

(4) *Ethiopic.* As in II Hebrew Honour Course.

4. SPECIAL (OPTIONAL) SUBJECT:—One only of the following:—

(1) *Semitic Archaeology.* Including the history of the Aramæan alphabets; all the most important Aramaic Inscription dockets and papyri, Assyrian, Syrian, Arabian Nabatæan, Palmyrene, Sinatic, old Egyptian and Assuan, and Babelon's Manual of Oriental Antiquities.

(2) *The history and significance of Syriac literature.*

(3) *The principles of Syriac poetry and oratory.*

(4) *The structure, contents and ethics of the Talmud.*

(5) *The history of the genesis and development of the Neo-Hebrew language and literature.*

(6) *The literary influence of Aramaic upon Jewish and Early Christian literature.*

(7) *Comparative philology of the Semitic languages.*

DEPARTMENT OF PHILOSOPHY.

PROFESSOR:—W. CALDWELL.
ASSOCIATE PROFESSOR OF LOGIC AND METAPHYSCS:—
J. W. A. HICKSON.
ASSISTANT PROFESSOR OF PSYCHOLOGY:—WILLIAM D. TAIT.

The courses in this Department are designed to meet the wants of students in the Faculty of Arts, of students in the professional schools, of partial students and of graduates.

In all the ordinary courses such topics as the subject of scientific method, the relation of ethics to legal and social questions, the relations of psychology and philosophy to education, etc., are definitely kept in view.

GROUP I.

(*Primarily for Second Year Undergraduates.*)

1A. ELEMENTARY PSYCHOLOGY. Monday and Wednesday, at 10 a.m. Dr. Tait.

1B. LOGIC. A course in the elements of logic, including the general nature of induction and the fallacies.

Text-book:—S. H. Mellone, Introductory Text-book of Logic (sixth edition), omitting section 5, chap. IV, and chaps. IX and XI. Thursday and Friday, at 10 a.m. Dr. Hickson.

2. INTRODUCTION TO PHILOSOPHY. A general introductory course for students, both inside and outside the philosophical department. It will begin with some ten to twelve lecture-talks (two weekly at some convenient afternoon hour), upon the nature of philosophy, its meaning to mankind and to human culture, its place as a university study, etc. Any students who wish (for proper reasons) to content themselves with this preliminary study, will be free to leave the course at this stage. Thereafter the course will be continued for one or two hours a week, for the benefit of those who are interested either in philosophy as such, or in philosophy as related to other university studies. An outline treatment will be given of the main schools and divisions of philosophical thought, and some of the main problems of philosophy, *e.g.*, the ideal-

istic and realistic views of the nature of reality, the critical philosophy, the problem of knowledge, the problem of ideals and conduct, determinism, freedom, etc.

Two hours weekly for five or six weeks, and then one or two hours weekly. Dr. Caldwell.

GROUP II.

(*For Third and Fourth Year Undergraduates and for Graduates.*)

3A. MORAL PHILOSOPHY. Outlines of ethics as a science; morality in the race and in the individual; the postulates and divisions of ethical science; theories of conscience and of the moral standard; the ethics of idealism and the ethics of evolution.

3B. APPLIED ETHICS. Ethics and the sociological movement of recent times; the ethics of the social questions; the duties and the virtues and the unity of the moral life; moral pathology; moral training; the ethical problem of the present time. M., T., Th., F., at 12. Dr. Caldwell.

4. ADVANCED MORAL PHILOSOPHY. Designed to meet the wants of students who have taken course 2, or who are otherwise competent to undertake the study of the more important works (classical, modern and recent) upon the theory of morals, or to pursue the study of special questions in ethics and social philosophy. Two to four hours weekly. Dr. Caldwell.

5. GREEK PHILOSOPHY. Pre-Socratic physicists in Ionia, Italy and Sicily. The Athenian Period, and the rise of systematic logic, ethics and psychology; Socrates, Plato, Aristotle; general diffusion of philosophy over ancient life as a rule of conduct; Stoicism, Epicureanism, Scepticism, Neo-Platonism.

Books of reference:—The various source-books, such as Ritter and Preller, Fairbanks, Bakewell, Wallace, etc., Zeller's Outlines and History; Aristotle's Metaphysics, Book I, Taylor's Translation. Two hours, or more, weekly. Dr. Caldwell.

6A. HISTORY OF MODERN PHILOSOPHY. From the Renaissance to Kant. First term.

6B. History of Modern Philosophy. From Kant to the present time. Second term.

Works of reference:—The various Histories of Philosophy, by Falckenberg, Höffding, Weber, etc. Use will be made of Rand's Modern Classical Philosophers.

Four hours a week. Dr. Caldwell and Dr. Hickson.

7. Logic of Scientific Method. Theory of induction and its pre-suppositions; methods of scientific proof; logical relation of the historical to the natural sciences; use of the theory of probabilities; classification of the sciences.

Works of reference:—Mill, System of Logic, Books III and VI; Jevons, Principles of Science; Sigwart's Logic, Vol. II; Hobhouse, Theory of Knowledge; Poincaré, Science and Hypothesis; Bernheim, Text-book of Historical Method. Two hours a week. Dr. Hickson.

8. Theory of Knowledge and Metaphysics. For fourth year students. Papers required. Four hours weekly. Dr. Hickson.

9. Main Currents of Philosophical Thought since 1860. It is desirable that students should have already some knowledge of the history of modern philosophy. Two hours weekly. Dr. Hickson.

10. Experimental Psychology. An introduction to the methods of experimental psychology. Four hours a week and conferences. Dr. Tait.

11. Advanced Psychology. Discussion of the leading problems in general and physiological psychology. Two hours per week. Dr. Tait.

12. History of Psychology. An outline of psychological problems from Aristotle to the present time. Two hours per week. Dr. Tait.

13. Applied Psychology. A series of lectures on the relation of psychology to the affairs of life, including medicine, law, education æsthetics, social problems and industry. Two hours per week. Dr. Tait.

14. Philosophy of Religion. Open only to graduates or fourth year students who have taken the ordinary course of

the second and third year. Some representative modern work will likely be used as a basis for discussion and research and reports. Two hours weekly. Dr. Caldwell.

Students for honours are required to take three full courses from the above during each of the third and fourth years, together with a course in any of the following subjects:—Education, history, economics, English literature, physics, physiology, zoology. They are also urgently recommended to acquire a reading knowledge of French and German.

Honours in Philosophy and English Literature.

Students may also elect a joint-honours course in Philosophy and English. Either subject may constitute the major or the minor; or the time may be divided equally between the two subjects. The other conditions are those obtaining for all honour courses in the Departments of Philosophy and English. In connection with this double honour course, a choice should be made out of the following courses in the Department of Philosophy: Introduction to philosophy, theory of knowledge, moral philosophy, Greek philosophy, history of modern philosophy, main currents of philosophical thought, advanced psychology, and history of psychology.

Group III.

(*Primarily for Graduates.*)

15. Psychological Laboratory. The facilities of the laboratory are at all times at the disposal of anyone who is qualified to do original work. Individual problems will be assigned to those taking advanced work. Dr. Tait.

16. Philosophical Seminary. The philosophy of Kant and its influence. This course is intended for those who have some knowledge of technical philosophy, and a reading knowledge of German. Two hours weekly. Dr. Hickson.

17. Ethical Seminary. Proposed subject, Recent and Contemporary Ethical theories. Two hours weekly. Dr. Caldwell.

Summer Readings.—All students in philosophy, after the second year in Arts, are encouraged to undertake a course of summer reading in connection with their winter work.

Those contemplating graduate work are recommended to correspond with the Department in the spring or summer preceding their period of registered study.

DEPARTMENT OF HISTORY.

PROFESSOR:—CHARLES W. COLBY.
ASSOCIATE PROFESSOR:—C. E. Fryer.
LECTURER:—HAROLD LASKI.
TUTOR:—ETHEL HURLBATT.

First Year.

1. GREAT MEN AND GREAT MOVEMENTS.

In this course no attempt will be made to present an epitome of fact. The aim of the lectures is rather to stimulate the beginner's interest in historical reading through an appeal to biography and the chief episodes in the progress of European thought. The sessional examination will be based on the following texts:—

Butcher, "What we Owe to Greece"; Thucydides, The Funeral Speech of Pericles, Book II, sections 35-46, Jowett's translation; Plutarch, Life of Timoleon, Clough's translation; Mommsen, Character Sketch of Julius Cæsar, History of Rome; Matthew Arnold, Essay on Marcus Aurelius; Freeman, Ancient Greece and Mediæval Italy; Einhard, Life of Charlemagne, Glaister's translation; Macaulay's Essays on Ranke's History of the Popes, and Clive; Macaulay's State of England in 1685, History of England, chapter III; Parkman, The Heroes of the Long Sault; Stevenson's Essay on the English Admirals. A few illustrated lectures may also be given if suitable hours can be found. One hour a week. Dr. Colby.

Second Year.

2. EUROPEAN HISTORY.

An outline course indicating the successive periods of European history. Students are required to provide themselves with an historical atlas. Short essays will be expected at

frequent intervals on assigned reading. Two hours a week. Dr. Fryer.

N.B.—Courses 1 and 2 are prerequisite for honours in history.

Honour and Continuation Courses.

Third and Fourth Years.

3. The History of Europe, from the accession of Augustus to the death of Luther, B.C. 27—A.D. 1546.

In this course special attention will be given to institutions and movements. Topics for investigation will be assigned, and students will write at least one thesis during the year. Readings to accompany each lecture are assigned in the syllabus for the course. Four hours a week. Dr. Colby.

4. The Renaissance. Two hours a week. Dr. Colby.

5. The Political History of Europe Since 1888. Two hours a week. Dr. Colby.

6. English Constitutional History, 449-1307. Two hours a week.

7. English Constitutional History, 1307-1911. Two hours a week.

8. English Political Ideas from Bacon to the present Time.

This course will touch on the views of the main political thinkers, such as Bacon, Hobbes and Locke, chiefly in connection with the rise and fall of individualism and the growth of democratic government. Two hours a week.

9. The History of England since 1784.

A study of the development of industrial democracy in England. Four hours a week. Dr. Fryer.

10. Recent History of the Great Powers.

A study of the world policy of the Great Powers since 1878. Two hours a week. Dr. Fryer.

Honour students of the third year will take course 3, and will select four of courses 4, 5, 6, 7 and 8, together with an ordinary course of the third year in Political Science, English, French or German or Philosophy.

Honour students of the fourth year will take course 9, and will select three of courses 4, 5, 6, 7, 8 and 10, not previously taken, together with a half-course in Political Science, English, French, German or Philosophy. In addition, a thesis on a subject to be approved by the Department will be required.

Honour students in History and English of the third year will choose, subject to approval, eight hours a week from both departments. In the fourth year six hours a week from both departments will be required.

Texts:—Honour students in history will be examined at the end of the third year on the following texts:—Herodotus, VI-VII, Macaulay's trans.; Thucydides, I, II, 1-65, VI, VII, Jowett's trans.; Plutarch, The Lives of Themistocles, Pericles, Pyrrhus, Caius Gracchus, Cato the Younger, and Julius Cæsar, Clough's trans.; Polybius, Books VI-IX, Shuckburgh's trans.; Livy, Books XXI-XXII, Church and Brodribb's trans.; Tacitus, Annals, Book I, Germania, Vita Agricolæ, Church and Brodribb's trans.

Honour students will be examined at the end of the fourth year on the following texts:—Clarendon, History of the Rebellion, Book VII; Burnet, History of My Own Time, Book IV, from the beginning of 1689 to the end of the book; Gibbon, Decline and Fall, chapters I, II, III, XXIII, L, LVII, LVIII; Burke, Reflections on the French Revolution; Macaulay, History of England, chapters IV-IX; Captain Mahan, Influence of Sea Power on History; Buckle's History of Civilization, chapters I-II; Parkman, Montcalm and Wolfe; Lord Acton, Lectures on Modern History.

The Howard Murray scholarship is available for honour students in history both in the third year and in the fourth year. (See p. 57.)

Graduate Courses.

The department is prepared to accept a limited number of students for graduate study. Students proposing to offer history as a major subject for the master's degree in the Graduate School are expected to have completed the ordinary

courses of the first and second years, and two full courses of the third and fourth years. Students entering the Graduate School from other colleges will be required to show an equivalent to such courses.

DEPARTMENT OF ECONOMICS AND POLITICAL SCIENCE.

PROFESSOR:—STEPHEN B. LEACOCK.
ASSOCIATE PROFESSOR:—J. C. HEMMEON.

ORDINARY COURSES.

Second Year.

1. ELEMENTS OF POLITICAL ECONOMY. Two hours per week throughout the session. Dr. Leacock.

Third and Fourth Years.

2. PRINCIPLES OF ECONOMIC THEORY. Four hours per week throughout the session. Dr. Hemmeon.

3. PRINCIPLES OF POLITICAL SCIENCE. Four hours per week throughout the session. Dr. Leacock.

HONOUR AND CONTINUATION COURSES.

4. ECONOMIC HISTORY.* Four hours per week during the first half of the session. Dr. Hemmeon.

5. MONEY AND BANKING.* Four hours per week during the second half of the session. Dr. Leacock.

6. POLITICAL ECONOMY PRIOR TO THE NINETEETH CENTURY.* Four hours per week during the first half of the session. Dr. Hemmeon. (Omitted in 1915-1916.)

7. POLITICAL ECONOMY IN THE NINETEENTH CENTURY.* Four hours per week during the second half of the session. Dr. Leacock. (Omitted in 1915-1916.)

8. ECONOMIC FACTORS IN THE DEVELOPMENT OF SOCIETY.* (Omitted in 1915-1916.) Four hours per week during the first half of the session. Dr. Hemmeon.

9. Social Reform.* (Omitted in 1915-1916.) Four hours per week during the second half of the session. Dr. Leacock.

10. Canada:—Federal and Provincial Governments. Four hours per week during the first half of the session. Dr. Leacock.

11. Public Finance. Four hours per week during the second half of the session. Dr. Hemmeon.

12. Canada:—Industrial and Economic Problems. Two hours per week throughout the session. Dr. Hemmeon.

Honour students of the third year will take courses 2, 3, 4, 5, together with ordinary history or French or philosophy of the third year.

Honour students of the fourth year will take courses 4, 5, 10, 11, 12; together with a half-course in history, French, philosophy or Roman law, as arranged in consultation with the Department.

Students of the fourth year who have taken the third year ordinary course in political economy may offer as a continuation, course 3 or courses 4 and 5.

Students of the fourth year who have taken the third year ordinary course in political science may offer as a continuation, course 2 or courses 10 and 11 or courses 10 and 12.

Four exhibitions, known as the Mackenzie Exhibitions, are awarded annually in the Department, two of the value of $100.00 and two of the value of $50.00. For regulations, see page 57.

Two prizes, known as the "Industrial Canada" prizes, one of $60.00 and one of $30.00, are awarded annually in the department for the two best essays presented on Canadian economic subjects. Information as to the conditions of the award may be obtained from the Head of the Department.

Graduate Study.

Graduate work in the Department is carried only as far as the M.A. degree. In order to be admitted to graduate study, applicants must have completed the ordinary and continuation courses of the third and fourth years in both economics and political science, as indicated above (courses No. 2, 3, 10, 11,

and either 4 and 5, or 6 and 7, or 8 and 9). Graduates may obtain this standing by taking the required courses, but such work is not to be done as a part of the M.A. course nor to run concurrently with it. Applicants may be admitted to graduate study who have taken in some other university work which in the opinion of the department is equivalent to the qualifications named above. The courses marked with an asterisk above are open to graduates who have not already taken them as undergraduates. Graduate students may obtain the M.A. degree after (a) one year of resident study with lectures, as assigned by the Department and approved by the Committee on Graduate Studies in each case, and on the presentation of a thesis approved by the Department; (b) two or more years of non-resident study, as recommended by the Department and approved by the Committee in each case, and on the presentation of a thesis as above.

DEPARTMENT OF EDUCATION.

PROFESSOR:—J. A. DALE.
ASSOCIATE PROFESSOR AND HEAD OF THE SCHOOL FOR TEACHERS, MACDONALD COLLEGE:—SINCLAIR LAIRD.

[For the staff of the School for Teachers, see Officers of Instruction.]

ORDINARY COURSES.

Third or Fourth Year.

1. HISTORY OF EDUCATION. (*a*) Ancient and Mediæval (not given in 1915-1916); (*b*) Modern and Contemporary. Two hours a week. Tuesday, 9; Thursday, 9. Prof. Dale.

2. THEORY AND PRACTICE OF EDUCATION. Two hours a week. Tuesday, 5; Thursday, 5. Prof. Dale.

The above courses are required for the First Class Academy Diploma of the Province of Quebec, together with (a) fifty half-days of observation and practice, which can be taken partly in term time, and may be divided between the years; (b) a course in physical education qualifying for the Strathcona certificate B. This course is taken in the fourth year. See page 340.

Post-Graduate Course.

3. Seminar. Readings, reports, theses. Two consecutive hours weekly throughout the session. Two years' study covers the non-resident M.A. course. Each year's work comprises a complete course; but if the number of applicants exceed the limit (12), separate classes will, if possible, be formed to cover the first and second years respectively of the M.A. course. Professors Dale and Laird.

Training of Teachers.

The University, through its Department of Education, undertakes the training of teachers in all grades required by the province; and through the Teachers' Training Committee offers training for specialists in certain subjects. See pages 164 and 341.

CONSTITUTIONAL LAW.

The Constitutional Law of Canada will be treated in the following order:—(1) Canadian Constitutional History, prior to Confederation; (2) the British North America Act, and the leading cases under it which illustrate the respective powers of the Dominion and the Provinces; (3) the fundamentals of English Constitutional Government which form the basis of the Canadian Constitution; (4) the Cabinet system; (5) the difference between English and French practice as to responsibility of officials. Two hours a week.

ROMAN LAW.

A course is offered in Roman Law, open to third and fourth year students in Arts, and qualifying as an option for the B.A. degree. Details are given on page 270.

DEPARTMENT OF MATHEMATICS.

PROFESSORS:— J. HARKNESS. A. S. EVE.

ASSISTANT PROFESSORS:— T. RIDLER DAVIES. C. T. SULLIVAN. L. V. KING.

LECTURER:—I. A. MILLER.

ORDINARY COURSES.

First Year.

1. PLANE AND SOLID GEOMETRY. As in Hall and Stevens' Geometry. Two hours a week (before Christmas). Mr. Davies.

   ALGEBRA. Hall and Knight's Elementary Algebra (omitting chapters 40-42 inclusive, or the same subject matter in similar text books). Two hours a week (after Christmas). Mr. Davies.

   TRIGONOMETRY. Hall and Knight's Elementary Trigonometry to page 210 and chapter 19; nature and use of logarithms [Bottomley's four-figure tables]. Two hours a week throughout the session. Mr. Davies.

Second Year.

2. GEOMETRY. (*a*) Solid geometry, continuation of the first year; (*b*) geometrical conic sections, Wilson's Solid Geometry and Geometrical Conics. Three hours a week, before Christmas. Mr. Davies.

   ALGEBRA. Permutations and combinations; binomial theorem; exponential and logarithmic series; interest, annuities and bonds; undetermined co-efficients; partial fractions; summation of typical series; probabilities; determinants; graphic methods. Three hours a week, after Christmas. Mr. Davies.

   Text-book:—Hall and Knight's Higher Algebra.

   SPHERICAL TRIGONOMETRY. A short course compulsory for students proceeding to the Faculty of Applied Science. Students taking the advanced course in mathematics are recommended to take this course.

Third or Fourth Year.

3. ANALYTICAL GEOMETRY (C. Smith). Two hours a week. Prof. Eve.
INFINITESIMAL CALCULUS (Lamb). Two hours a week. Prof. Harkness.

4. ASTRONOMY. This course is intended to give a general account of the main facts of astronomy, and the methods by which these facts are obtained. It may be taken by students who have attained the ordinary or advanced courses in mathematics of the first two years. Two hours a week. Mr. Davies.

ADVANCED COURSES.

First Year.

5. GEOMETRY AND TRIGONOMETRY. As in ordinary course, before Christmas.
MODERN PURE GEOMETRY. After Christmas. Prof. Davies. Two hours a week.
HIGHER ALGEBRA. Hall and Knight, Theory of Equations (part of Burnside and Panton).
HIGHER TRIGONOMETRY (Carslaw). Prof. Harkness. Two hours a week.

Second Year.

6. ANALYTICAL GEOMETRY, C. Smith. Dr. Sullivan. Two hours a week.
INFINITESIMAL CALCULUS, Lamb; Osgood. Two hours a week. Prof. Harkness.
Students are recommended to take the special short course in spherical trigonometry.

7. DYNAMICS, STATICS AND HYDROSTATICS. For students who are proceeding (1) to the Faculty of Applied Science, or (2) to third year honours in mathematics in Arts. Mr. L. V. King. Two hours a week.

HONOUR COURSES.

Third Year.

8. SELECTED TOPICS IN DIFFERENTIAL AND INTEGRAL CALCULUS.

9. DIFFERENTIAL EQUATIONS.

10. GEOMETRY OF THREE DIMENSIONS. Profs. Harkness and Eve. Four hours a week.
In addition, students reading for honours will be required to take courses in physics, as arranged by the Physics Department.

Fourth Year.

The courses given will be selected from the following:—

11. VECTOR ANALYSIS.

12. THEORY OF FUNCTIONS.

13. ELLIPTIC FUNCTIONS.

14. MODERN ANALYTICAL GEOMETRY. Lectures in connection with Scott's Modern Analytic Geometry and the early chapters of Salmon's Higher Plane Curves.

15. GEOMETRY OF POSITION. Lectures on modern geometry, based on Reye's Geometry of Position. Five hours a week. Prof. Harkness.
In addition, students reading for honours will be required to take courses in physics, as arranged by the Physics Department.

DEPARTMENT OF PHYSICS.

PROFESSORS:— { HOWARD T. BARNES. / A. S. EVE.
ASSISTANT PROFESSORS:— { L. V. KING. / J. A. GRAY.
LECTURERS:— { N. E. WHEELER. / H. E. REILLEY.
DEMONSTRATORS:— { A. A. SCOTT. / VIOLET HENRY.

ORDINARY COURSES.

First Year.

1. PHYSICS. This course has two objects: (1) to give the minimum acquaintance with physical science requisite for a liberal education to those whose studies will be mainly literary; (2) to be introductory to the courses in chemistry and other branches of natural science, and to the more detailed courses in physics in the third and fourth years. Only the most important principles in each branch of the subject will be treated, as far as possible, with reference to their historical development and mutual relations. Two lectures will be given per week, which will be fully illustrated by experiments. During the session each student will be required to attend in the laboratory and make measurements involving the use of the following instruments:—balance, pendulum, barometer, thermometer, sonometer, telescope, microscope, tangent galvanometer, Wheatstone's bridge. *Text-book*: Reed and Guthe's College Physics. full course. Tuesday and Thursday, at 2. Prof. Eve.

Second Year.

2. MECHANICS AND HYDROSTATICS.—Two hours a week. (See page 143, course 7.) Mr. King.

Third Year.

3. HEAT, SOUND AND LIGHT (*Full Course*). These lectures are taken by third year ordinary students and second year honour and B.Sc. students. Two hours per week. Prof. Barnes.

Text-book:—Draper's Advanced Heat, Deschanel's Sound and Light.

Laboratory course, two hours per week.

Text-book:—Laboratory manuscripts. See courses 311 and 312, under Applied Science.

Fourth Year.

4. ELECTRICITY AND MAGNETISM (*Full Course*). These lectures are taken by fourth year ordinary students, third year honour students, third year B.Sc. ordinary students and second year B.Sc. honour students. Two hours per week. Dr. Gray.

Text-book:—Magnetism and Electricity, by Brooks and Poyser (Renouf Publishing Co.).

Laboratory course, two hours per week.

Text-book:—Laboratory Manuscripts (Renouf Publishing Co.)

HONOUR COURSES.

Second Year.

5. The ordinary third year course, together with more advanced work.
6. DYNAMICS. Mr. King.

Third Year.

7. PROPERTIES OF MATTER. Mr. Wheeler.
8. The ordinary fourth year course, together with a more advanced course on ELECTRICAL THEORY. Dr. Gray.
9. STATICS, DYNAMICS OF A PARTICLE AND RIGID DYNAMICS. Mr. King.

Fourth Year.

10. VECTOR ANALYSIS. Prof. Eve.
11. ELEMENTS OF HYDRODYNAMICS. Mr. King.
12. ELECTRICAL MEASUREMENTS. Prof. Barnes.
13. ELECTRICAL AND OPTICAL THEORY. Dr. Gray.
14. RADIOACTIVITY. Prof. Eve.
15. THEORY OF HEAT. Prof. Barnes.
16. KINETIC THEORY OF MATTER. Mr. King.
17. DIFFERENTIAL EQUATIONS IN PHYSICS. Mr. King.

DEPARTMENT OF CHEMISTRY.

PROFESSOR:—R. F. RUTTAN.

ASSOCIATE PROFESSORS:— { NEVIL NORTON EVANS. F. M. G. JOHNSON.

ASSISTANT PROFESSOR:—V. K. KRIEBLE.

LECTURER:—A. R. MCLEAN.

DEMONSTRATORS:— { T. WEST. E. R. EDSON. M. J. MARSHALL.

ORDINARY COURSES.

Second Year.

1. GENERAL CHEMISTRY.—A course of lectures on the fundamental theories of chemistry, illustrated by the chemistry of the principal elements and their compounds. The lectures are fully illustrated by means of experiments. Three hours a week. Dr. Ruttan.

   Text-books:—General Chemistry for Colleges, Alex. Smith; or General Chemistry, McPherson and Henderson.

   For reference:—Modern Inorganic Chemistry, J. W. Mellor.

   ELEMENTARY PRACTICAL CHEMISTRY. This course is compulsory for all undergraduates taking the above course of lectures. The work includes experiments illustrative of the laws of chemical combination, the preparation of pure chemical compounds, and elementary qualitative, quantitative and volumetric analysis. Four hours a week.

Third or Fourth Year.

2. ORGANIC CHEMISTRY. A general course of lectures on organic chemistry in two half courses. Part 1. Three lectures per week during the first term. Part 2. Two lectures per week during the second term and organic preparations (as in course 3). Dr. Ruttan.

   Text-books:—Perkin and Kipping or Remsen's Organic Chemistry.

3. Practical Organic Chemistry. The preparation and study of a number of typical organic substances; general reactions for groups; ultimate organic analysis. Two periods per week for the second term. Dr. Ruttan and Mr. MacLean.
   Text-book:—Gattermann's Practical Organic Chemistry.
4. Analytical Chemistry, Part 1 (*Qualitative Analysis*). A course in qualitative analysis, including separation of mixture. Three periods a week during the first term. Messrs. Evans and Browne.
   Text-book:—Steiglitz, Qualitative Analysis, Parts 1 and 2.
   Part 2. *Quantitative Analysis*. A course in laboratory practice in methods of gravimetric and volumetric analysis. Four periods per week during the second term. Dr. Johnson.
   Text-book:—Cumming and Kay.
5. Physical Chemistry. A short course on the elements of physical chemistry. Two lectures per week during second term. Dr. Johnson.
   Text-book:—Walker's Introduction to Physical Chemistry.

Honour Courses.

Third Year.

Honour students in the third year will be required to take the courses in organic and analytical chemistry, numbers 2, 3 and 4 above, together with physical chemistry, number 5. They are also required to take course number 3 in physics (page 145), and a half-course in calculus or biology or geology or mineralogy.

Fourth Year.

6. Advanced Inorganic Chemistry. A course of lectures on inorganic chemistry, discussing elements and compounds in accordance with the general principles of physical chemistry. Two hours a week. Dr. Johnson.

7. ORGANIC CHEMISTRY. During the autumn term the course comprises the development of general theoretical organic chemistry, and a series of special lectures on the carbohydrates and the terpenes. The winter term is devoted to the organic chemistry of nitrogen, including the proteins, purins, alkaloids, etc. Two hours a week. Drs. Ruttan and Harding.

8. PRACTICAL ORGANIC CHEMISTRY. A complete and more advanced course on the preparation and study of organic substances, with determination of molecular weights, etc. Drs. Ruttan and Krieble.

9. PHYSICAL CHEMISTRY. The lectures are a continuation of those given during the third year and include thermochemistry, the principles of thermodynamics as applied to chemical action, osmotic phenomena and their application in deducing the ionisation theory of solutions, a study of such physical properties of gases, liquids and solids as are known to depend on their chemical constitution, the phase rule and electro-chemistry. Two hours a week.

Books of reference:—Ramsay's Text-books of Physical Chemistry.

10. PRACTICAL PHYSICAL CHEMISTRY. Laboratory work will include the various methods of determining the molecular weights of gases and of substances in solution, accurate measurements of densities, refractive indices, surface tensions and specific rotations; also examples of chemical statics and kinetics, and electrochemical measurements.

11. QUANTITATIVE ANALYSIS. An extensive course including both inorganic and organic methods. Dr. Johnson.

12. HISTORICAL CHEMISTRY. A short course on the development of chemical theory. One lecture per week during second term. Dr. Johnson.

In the fourth year, honour students will select either courses 6, 7, 8 and 9, *or* 8, 9 and 10. In addition to these, they must take course number 4 in physics (page 146).

Honour Course in Chemistry and Biology.

Second Year.

Latin, English composition, elementary chemistry, biology, and either French or German.

Third Year.

A full course in physics or French or German and a half-course in organic and biological chemistry, zoology, qualitative analysis, plant physiology and morphology of thallophyta.

A full course in physics or biology or advanced chemistry and half-course in quantitative analysis, vertebrate zoology, comparative histology, embryology and biological chemistry.

DEPARTMENT OF GEOLOGY AND MINERALOGY.

Professors:—{ Frank D. Adams. J. Austen Bancroft.

Assistant Professor of Mineralogy:—Richard P. D. Graham.

Lecturer:—John Stansfield.

Ordinary Courses.

Third Year.

1. General Geology. The lectures will embrace a general survey of the whole field of geology, and will be introduced by a short course in mineralogy. Especial attention will be devoted to dynamical geology and to historical geology, including a description of the fauna and flora of the earth during the successive periods of its past history.

   The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern views. There will be an excursion every Saturday until the snow falls, after which the excursion will be replaced by a demonstration in the Museum.

Three hours a week throughout the year, with additional excursions and demonstrations as above stated. Dr. Adams and Dr. Bancroft.

Text-book:—Scott, An Introduction to Geology.

Books of reference:—Dawson, Hand-book of Geology; Dana, Manual of Geology.

Honour Courses.

Third Year.

In the third year, students pursuing the honour course will take General Geology, 1.

2. Mineralogy. Lectures and demonstrations illustrated by models and specimens in the Peter Redpath Museum and the Macdonald Chemistry and Mining Building. Among the subjects discussed are:—Crystallography; physical properties of minerals dependent upon light, electricity, state of aggregation, etc.; chemical composition, calculation of mineral formulæ, quantivalent ratios, etc.; principles of classification, description of species. Two hours a week. Mr. Graham.

3. Determinative Mineralogy. Laboratory practice in blow-pipe analysis and its application to the determination of mineral species. This work is carried on in the laboratory provided for the purpose in the Chemistry and Mining Building. Two afternoons in first term. Mr. Graham and Mr. Stansfield.

Fourth Year.

4. Mineralogy (in continuation of No. 2). Description of species, particular attention being paid to those which are important as rock constituents and to the economic minerals of Canada; measurement of the angles of crystals with the reflection goniometer; projection of crystal forms, calculation of axial ratios of crystals; drawing of crystal forms; use of the polarising microscope; axial angle apparatus, etc. First term, two hours a week. Mr. Graham.

5. PETROGRAPHY. The modern methods of study employed in petrography are first described, and the classification and description of rocks are then taken up.

One lecture a week during the first term. One afternoon a week throughout the year will be devoted to special microscopical work in the Petrographical Laboratory. Dr. Bancroft, Mr. Graham and Mr. Stansfield.

Text-book:—Harker, Petrology for Students.

Books of reference:—Rosenbusch, Microskopische Physiographie, and Zirkel, Lehrbuch der Petrographie.

6A. PALAEONTOLOGY. An extension of the palæontology of course 2, with special studies of some of the more important groups of fossils. One lecture a week during the second term and one demonstration a week, with special studies in the Peter Redpath Museum. Mr. Stansfield.

Books of reference:—Nicholson and Lydekker, Manual of Palæontology; Zittel & Eastman, Text-book of Palæontology.

or

6B. PHYSIOGRAPHY. A description of land forms with reference to their origin, classification, drainage, development, climatic and human controls.

The physical features of Canada will be described during the latter half of the course.

The course will consist of lectures, demonstrations, and laboratory work, and will be illustrated by maps, models, and lantern slides. Two hours a week during the first term. Dr. Bancroft.

Books of reference:—Davis, Physical Geography; Mill, The International Geography.

7. ORE DEPOSITS AND ECONOMIC GEOLOGY. The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed. The more important non-metallic materials, *e.g.*, fuels, clay, abrasive materials, building stones, etc., will be similarly treated, as well as questions of water supply, artesian wells, etc.

The course will be illustrated by maps, models, lantern slides, and specimens. Four lectures a week throughout the second term. Dr. Adams.

Text-books: — Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Phillips and Louis, A Treatise on Ore Deposits; Beck, Ore Deposits.

Books of reference:—The Reports of the Geological Survey of Canada and the Monographs of the U.S. Geological Survey.

8. Economic Geology. This course is a continuation of the general geology of the third year and commences with the consideration of the structural features of the earth's crust, resulting from sedimentation, folding, faulting, the various phases of igneous intrusion, etc., with special reference to engineering problems. A discussion of the methods employed in carrying out geological and magnetic surveys and in the construction of geological maps and sections, as well as the interpretation of these, is then taken up.

One lecture a week throughout the first term. Dr. Bancroft.

9. Canadian Geology. — A general description of the geology and mineral resources of the Dominion.

One lecture a week during the first term. Dr. Bancroft.

Text-book:—Dawson, Hand-book of Geology.

Books of reference:—The Reports of the Geological Survey of Canada.

10. Geological Colloquium. A discussion each week of some geological topic, references to the literature of which have been given in the week preceding. The course is intended to give students some acquaintance with geological literature, as well as a wider knowledge of the great principles which underlie the science.

One hour a week throughout the year. Dr. Adams, Dr. Bancroft, Mr. Graham and Mr. Stansfield.

11. Geological Survey. Candidates for honours in the fourth year will also undertake, under the direction of the Department of Geology, a geological survey of some suitable area selected for that purpose. This survey will occupy two weeks, and will be made either at the close of the third year or immediately before the opening of the regular work of the fourth year, as may be arranged by the Professor of Geology. The preparation of a geological map of the surveyed area, the examination of the specimens collected, and the writing of a detailed report upon the area, will form part of the work of the fourth year.

Honour students of the third year will take courses 2 and 3, and also course 2 under zoology, if not previously taken, and course 1 under chemistry, if not previously taken; fourth year honour students will take courses 4 to 11.

DEPARTMENT OF BOTANY.

Professor:—Francis E. Lloyd.
Professor of Morphological Botany:—Carrie M. Derick.

Ordinary Courses.

Second Year.

1. Plant Biology. A course in the general principles and methods of study of morphology, classification and physiology.

This course, together with that in animal biology, constitutes the course in elementary biology.

Two lectures and two laboratory periods each week, during the second half of the session. Prof. Derick.

Third Year.

2. Comparative Morphology. Selected types are used to illustrate the structure, adaptations to environment, and ontogeny, evolution, and relationships of the algæ, fungi, liverworts, mosses, ferns, horsetails, club mosses and seed plants.

Two lectures and two laboratory periods each week throughout the session. Prof. Derick.

Third or Fourth Year.

4. GENETICS. A lecture course upon heredity, variation and evolution. Special readings and themes upon selected topics may be required.

Two lectures each week throughout the session. Prof. Derick.

Fourth Year.

5. PLANT PHYSIOLOGY. General physiology of the cell, fol lowed by special physiology, studied by critical methods.

Two lectures and two laboratory periods each week throughout the session, together with selected readings. Prof. Lloyd.

HONOUR COURSES.

Third Year.

For work in Zoology, see page 157.

6. HISTOLOGY AND ANATOMY, from the physiological point of view. Microscopic technique.

(*a*) Microphysics and microchemistry of the living cell; mitosis; origin and development of tissues.

(*b*) Structure from the ecological point of view.

(*c*) Definitive histological and anatomical structure, with especial attention to the use of methods for the determination of crude drugs, foods and adulterants.

(*d*) The structure involved in and the physiology of secretions, with reference especially to certain plant products, such as rubber, waxes, gums, resins. Woods, fibres, etc., are here considered.

Partial course (*a*) is introductory to any of the lines of work indicated in the subsequent paragraphs; (*b*) to (*d*) inclusive indicate the possibility of adapting the second half-

year's work to the special needs of students who may be preparing themselves for teaching or for technical work.

Four laboratory periods weekly, occasional hours being taken for colloquia. Prof. Lloyd.

Fourth Year.

For work in Zoology, see page 158.

7. (*a*) THE ALGAE which affect water supplies.

(*b*) PLANT PATHOLOGY. A course dealing chiefly with bacteria and the fungi causing diseases of trees and timber.

This course gives training in culture methods and technique, and treats not only of the structure but of the physiological relations of all the important groups. It is especially useful to those intending to study medicine, forestry or agriculture.

Two lectures and two laboratory periods each week throughout the session. Prof. Derick.

8. CLASSIFICATION. Honour students and candidates for the scholarship in biology will be expected to pursue the independent study of classification during the summer months. An original collection of 75 species must be made and properly identified, and must form a basis for an understanding of the general interrelations of the larger groupings. A few lectures will be given during the latter part of the session for the benefit of those who wish to undertake this work. These will deal with the rationale of taxonomy and methods of collection and study. Advice as to the proper literature will also be given at this time.

GRADUATE COURSES.

Graduate courses leading to the degrees of M.Sc. and Ph.D. can be arranged to meet the special needs of candidates who may present themselves.

For further work of the Department, see the announcement of the Faculty of Medicine, page 296.

For the honour course in biology and chemistry, see p. 150.

DEPARTMENT OF ZOOLOGY.

PROFESSOR:—ARTHUR WILLEY.
LECTURER:—J. STAFFORD.
DEMONSTRATOR:—F. S. JACKSON.

Second Year.

1. ELEMENTARY ZOOLOGY. This course consists of a study of the principles of zoology as illustrated by a selected series of types. Two lectures and two demonstrations a week up till Christmas.

This course, taken along with the corresponding course in botany, constitutes the course in general biology.

Third Year.

2. GENERAL ZOOLOGY. This course consists of a general review of classes of invertebrate animals.

Two lectures and two demonstrations a week throughout the session. Dr. J. Stafford.

CONTINUATION COURSES.

Fourth Year.

3A. VERTEBRATE ZOOLOGY. This course deals with the comparative anatomy of vertebrate animals.

Two lectures and two demonstrations a week throughout the session.

3B. COMPARATIVE EMBRYOLOGY. This course consists of a study of the typical form of development and of its principal modifications in the animal kingdom.

Two lectures and two demonstrations a week during the second term of the session.

HONOUR COURSES.

Third Year.

Students proceeding to honours in biology shall take, during the third year, in addition to course 2, a series of special read-

ings under the supervision of the professor, with weekly colloquia.

One lecture and one demonstration per week.

During the fourth year students proceeding to honours shall take courses 3A and 3B.

A special fee of $2.50 is charged against the caution money of each student attending the zoological laboratory, in order to cover the cost of instruments and laboratory note-books, which are supplied to him and become his property. A student attending the laboratory for a second time is not called on to pay this fee.

For the honour course in biology and chemistry, see p. 150.

THE UNIVERSITY SCHOOL OF COMMERCE.

It is expected that the University will be able to offer for the Session 1915-1916 a more extended programme of studies in commerce than that which appears below. In that case a special bulletin containing details of the new courses will be issued from the office of the Registrar during the summer of 1915.

The University School of Commerce has been established at McGill University in order to meet the special requirements of young men who propose to enter upon a business career. It has been found by experience that there are, at the present time, a great many young men whose intention it is to go into business, but who are anxious to attain a higher standard of acquirement, both in general education and special study, than that imparted by the programme of studies in an ordinary academy or high school. Such persons do not find it to their advantage to pursue the full course of four years in any of the Faculties of the University, which aim specially at preparation for a professional rather than a business career. The programme of the University School of Commerce is designed, therefore, to combine an essentially practical education with such an amount of general culture as it is fitting that every business man should have. It is believed that a sound training in the essential branches of liberal education affords the best equipment for the conduct of practical affairs. With this end in view, the main object of the work undertaken in the school is rather to develop capacity than to impart special information. But while adhering to this general plan, the studies of the School of Commerce are differentiated somewhat from the kindred curriculum in Arts. Particular stress is laid upon those subjects, a knowledge of which is necessary for business men, while the character of the instruction, and the class methods adopted are specially suited for the end in view. Very great emphasis is laid upon teaching the student to read and write with fluency and accuracy, and to be able to apply a ready intelligence to practical business problems.

Facilities are afforded for the student to receive a training in such modern languages (French, German, Spanish) or in such branches of natural science (chemistry, botany, physics) as may be useful to him in the particular department of business life which he intends to enter.

The University School of Commerce offers, in the first place, a systematic course of study which extends over two years, and the successful completion of which is recognized by the award of a University Diploma. A certain number of these classes are carried on in connection with the regular work of the Faculty of Arts, in order that the standard of the School of Commerce may be maintained parallel with and equivalent to that of the regular Faculties of the University; but in recognition of the fact that the student about to enter upon a business career requires a training adapted to his particular needs, the major part of the work, even where the subjects are of a cognate character to those of the Faculty of Arts, is carried on in separate classes. The purely technical work (such as instruction in accountancy, commercial law and practical economics) is given in classes formed for that purpose alone, and to which only members of the School of Commerce are admitted. The same is true of the more directly practical part of the work in English.

In addition to the full two-year course leading to the Diploma, the work of the School of Commerce comprises also certain classes, which are recognized as Extension Classes, and which are thrown open, either singly or in a group, to any young man whose general education and credentials are considered satisfactory by the University. All those classes are held during evening hours in accordance with the schedule appended below. It will be noticed that students who find themselves able to attend only such classes as are held in the evening will nevertheless receive instruction in the most practical parts of the curriculum that are offered. Students who attend any one or more of these evening classes may receive, upon passing a special examination, a diploma in recognition of the work that they have accomplished.

PROGRAMME OF STUDIES.

The Two-Year Diploma Course.

FIRST YEAR.

Obligatory.

1—**English** (Special Course).
2—**History and Government.**
3—**Mathematics** (Special Course).
4—**Political Economy** (Evening Class).
5—**Accountancy.**

Optional (*one must be taken*).

1—**French.**
2—**German.**
3—**Chemistry** (with laboratory).
4—**Physics** (with laboratory).

In each of the above subjects the work done is as far as possible of a practical character. The instruction in English includes a constant drill in letter writing, essay writing, and the drawing up of reports. As it is considered extremely important that all young men should learn to express themselves in public without the difficulties which come from inexperience, a special training will be given in such oral presentation of various topics as may serve as an initiation in public speaking. The course in French aims especially at imparting facility in the spoken and written language. It includes the teaching of the practical terms and phrases in which business correspondence is carried on in French. Similar facilities are offered students who desire a training in the German or Spanish languages. The instruction in mathematics is designed to be of an entirely practical character. In addition to commercial arithmetic and the necessary elements of algebra, students are taught to handle tables of interest, percentage, etc., to understand the operation of the slide rule; and, in general, to acquire those ready methods of computation which are useful in practical life. The work in

chemistry and other natural sciences, while giving a grounding in the principles of the subjects, is designed to show the application of these principles in modern industrial operations. The course given in the first year in political economy is intended as a general foundation in the subject, to be utilized in special studies later on. The course in accountancy is purely technical.

The programme of the second year course follows along the lines thus indicated, the subjects taken up being grouped as follows:—

SECOND YEAR.

Obligatory.

1—**English.**
2—**Commercial Law** (Evening Class).
3—**Accountancy.**
4—**Advanced Political Economics** (in 1915-1916, the ordinary course of the third year).

Optional (*one must be taken*).

1—**French.**
2—**German.**
3—**Mathematics.**
4—**Chemistry.**
5—**Physics.**

Evening Extension Classes.

As indicated above, a certain number of the classes in the School will be held in the evening. It is proposed to develop this feature of the work more and more with the general progress which it is hoped will be made in the work of the School. During next session the instruction given in the evening will include the following subjects:

1. Political Economy (Thursday, 7.30 p.m.).
2. Commercial Law (Tuesday, Friday, 7.30 p.m.).

Regulations Regarding Admission.

Students who propose to enter for the full two-year course are subject to the same conditions of admission as those which

obtain for matriculation into the Faculty of Arts, but the Committee of Management may at its discretion admit a student who has not passed the formal matriculation test, provided that his general standing and attainments constitute, in the opinion of the committee, a qualification completely equivalent to the matriculation examination.

Diplomas and Degrees

given in recognition of the work done in the evening classes. Students who complete the two-year course of the Commercial School and who find themselves desirous of continuing their course with a view to obtaining a degree in Arts, may be admitted to the third year in Arts, provided that the number of subjects they have taken among the compulsory and optional courses of the School of Commerce is considered by the Faculty as a satisfactory standing for admission to the third year. Applicants whose standing falls somewhat short of this may make up the difference by passing a special or supplementary examination of the Faculty of Arts.

Fees.

See pages 70 and 71.

Instruction.

The instruction in the classes in the School is given in part by the regular professoriate of the University and in part by specially qualified persons engaged for work in particular studies.

Arrangements are in progress whereby candidates preparing for the examination prescribed for Chartered Accountants may be admitted to the School of Commerce and some modification of the programme of study may therefore be necessary.

For all further information, applicants will kindly address themselves to the Registrar of McGill University.

THE TRAINING OF TEACHERS.

The University, through its Department of Education, undertakes the training of teachers in all grades required by the province.

The First-Class Academy Diploma.

In order to qualify for this, the highest teaching diploma of the province, students are required to take, during the last two years of their undergraduate course, courses 1 and 2 in the Department of Education; and (unless they hold the Model Diploma or show an equivalent in successful teaching experience) to take the specified fifty half days of practice and observation, whether before or after graduation. See page 140.

Students are also required to take in the fourth year a course on the principles and practice of physical education in relation to schoolwork. This entitles students to the Strathcona B. Certificate. Full particulars, page 340. Miss Cartwright, Dr. Harvey, Mr. Lamb.

School Art. Optional instruction in this subject is offered without further fee to students taking the Academy Diploma course. A course of twenty lessons on the principles and practice of art in relation to schoolwork, comprising: brushwork, drawing, blackboard work, elements of design. Prof. Armstrong. Sat., 9.

Practical work done in this class is allowed on the recommendation of the instructors to count towards the specified period of observation and practice.

Elementary, Model and Kindergarten Diplomas.

The training for these diplomas is conducted at Macdonald College. (See Macdonald College Announcement.)

Courses for Teachers of Special Subjects.

(Given under the Teachers' Training Committee.)

Physical Education. A three-session course leading to a diploma for physical instructors, recognized by the Council of Public Instruction. See page 341.

French. A summer school for teachers of French leading to a Specialist Diploma recognized by the Council of Public Instruction.

School Art. Winter and Summer Courses. See above for the former.

Kindergarten Assistants. A two-session course leading to a certificate. This certificate is recognized by the Council of Public Instruction, and accepted as entrance to the Kindergarten Class of Macdonald College.

Particulars, which are published separately, may be obtained on application to the Registrar.

FACULTY OF APPLIED SCIENCE.

DEGREES AND EXAMINATIONS.

(1) *Degrees.*

The degrees conferred by the University upon such undergraduates of the Faculty as fulfil the conditions and pass the examinations hereinafter stated are, "Bachelor of Architecture" (B.Arch),* and "Bachelor of Science" (B.Sc.), mention being made in the diplomas of the latter of the particular course of study pursued.

Students who take the Bachelor of Science degree in one of the courses provided by the Faculty may graduate in any of the remaining courses by attending one or more subsequent sessions and passing the prescribed additional examinations.

Students who wish to obtain the degrees of B.A. and B.Sc. (Applied Science) in six years, will spend the first three years in Arts before attending any classes in Applied Science, except in the summer courses referred to below. The student will then enter the Faculty of Applied Science and devote the remaining three years entirely to the work of this Faculty. The special summer courses mentioned take the place of the work in descriptive geometry, drawing (freehand and mechanical) and shopwork, which form part of the regular course of the first year in Applied Science. This work must be taken in two periods of one month each (in the month of September), prior to the regular work of the second and third years in the Faculty of Arts; and must not be taken during the regular session in any of the three years spent in that faculty.

---

* Note.—The course in Architecture now extends over five years, except in the case of those who entered the Faculty before the session 1914-15.

Every student who intends to take this double course must notify the Dean of the Faculty of Applied Science to this effect, on or before the close of his first year in Arts (May 1st), and must pay the fee of $50.00 to the Bursar, for the first of his summer schools, before 1st September following.

By a resolution of the Institution of Civil Engineers (England) the holders of the degree of B.Sc., in the courses of civil, electrical, mechanical, and mining engineering, who are desirous of becoming associate members of the Institution, may under certain conditions be exempted from the examination prescribed for admission to the Institution.

(2) *Examinations.*

1. Final examinations are held in all lecture subjects. Class examinations, for which credit may be given in the sessional standing, are held from time to time, at the option of the professor.

2. Students who have failed in one or more subjects of the curriculum shall be required to make good their standing by passing:—

(1) The supplemental examinations, *or*
(2) The final examinations in a subsequent session, *or*
(3) Special examinations, which shall be given only under exceptional circumstances and by authority of the Faculty.

3. No undergraduate will be allowed to take instruction in any subject until he has passed the examinations in the necessary pre-requisite subjects, for particulars regarding which see page 258.

4. Failures in drawing room and laboratory subjects may under certain conditions be made good by attendance on special classes during the afternoons of the first six weeks of the following session.

COURSES OF INSTRUCTION.

The instruction in this Faculty is designed to afford a thorough training of a practical as well as a theoretical nature, in the following branches of applied science:—

I.—Architecture.
II.—Chemistry.
III.—Chemical Engineering.
IV.—Civil Engineering and Surveying.
V.—Electrical Engineering.
VI.—Mechanical Engineering.
VII.—Metallurgical Engineering.
VIII.—Metallurgy.
IX.—Mining Engineering.
X.—Railway Transportation.

Military Instruction (subject No. 400) will be given as alternative to certain subjects in connection with courses III to X, inclusive (see pages 176 to 191). Course 400 comprises "Group B, 3 and 4, and Group C, 5," as on page 344. Students who complete these courses to the satisfaction of the Department of Militia and Defence will have fulfilled the main requirements for a Lieutenant's commission in the Canadian Engineers.

The regular work of each session in Applied Science will end about the 1st of May, at the close of the sessional examinations. The summer work will be taken during the month of September (see page 192).

The curriculum, as laid down in the following pages, may be changed from time to time as deemed advisable by the Faculty. The work prescribed for the first two years is the

same in all courses, except in the Practical Chemistry and Metallurgy Courses, and in that leading to the degree of Bachelor of Architecture (Courses I, II and VIII).

The first two years of the engineering courses (III to VII and IX and X) are mainly devoted to mathematics, mechanics, physics, chemistry, drawing and shopwork, as it is deemed necessary that students in these courses should master the general principles underlying scientific work before commencing the subjects of the professional courses.

The subjects of instruction in the engineering courses in these years, and the number of hours per week devoted to each, are as follows:—

FIRST YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Algebra	192	5	5	..	..	224
Descriptive Geometry	341	..	..	1	3	215
English	131	2	2	..	..	219
Freehand Drawing	342, 343	..	..	2	..	215
Geometry	191	3	..	..	..	224
Mech. Drawing	211	..	..	1	1	225
Mechanics	194	2	2	..	..	224
Physics	311	2	2	..	..	246
Physics Lab	312	..	..	1	1	246
Shopwork and Shop Methods	212 to 215	..	..	2	2	226
Trigonometry	193	..	3	..	..	224

All undergraduate students of the first year, except those in the course of Architecture, who at the close of the first term have failed to obtain an average of 33 per cent. in the following five subjects, viz.:—mechanics, geometry, algebra, physics and descriptive geometry, will be required to withdraw from the Faculty.

In the case of students in the course of Architecture the same rule applies, the five subjects, however, being mechanics, geometry, algebra, physics and architectural drawing.

Any other student of the first, or any subsequent year, whose record is found to be unsatisfactory may at any time be required to withdraw from the Faculty.

SECOND YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Anal. Geometry	197	3	..	..	..	224
Calculus	198	3	3	..	..	225
General Chemistry	51	3	3	..	..	204
General Chem. Lab.	52	..	..	1	1	205
Graphical Statics	82	..	..	..	1	209
Mapping	348	..	..	1	1	248
Materials of Construction	81	1	1	..	..	209
Mechanical Drawing	219	..	..	1	1	227
Mechanics	83	..	3	..	..	209
Mech. of Machines	218	3	3	..	..	227
Physics	315	2	2	..	..	246
Physics Lab.	316	..	..	1	1	246
Shopwork and Shop Methods	220, 221	1	1	1	1	228
Surveying	346	2	2	..	..	247
Surveying Field Work	347	..	..	..	..	248

Note—Surveying field work, 4 weeks, beginning September 6th, 1915. See page 249.

For other summer school work see page 192.

I. Architecture.

For students entering in and after 1914 the curriculum required for the degree of Bachelor of Architecture will extend over five years. The curriculum of the new course includes greatly increased training in draughtsmanship and design, but otherwise does not depart from the lines already established in the four years course.

Undergraduates who have passed their first year work in 1913-14 and who continue to make satisfactory progress will pursue the old curriculum.

Besides work in the Department of Architecture proper, teaching is provided by the Faculties of Arts, Law and Medicine. The work in the four classes in design A, B, C and D, is independent of the work in the five years, *and good standing in design, class D, must be obtained prior to receiving the degree.*

The object of the curriculum in the first year is to impart such general culture, scientific knowledge and skill of hand as will prepare the student to profit by the work of the succeeding years, under the heads of:—

(*a*) Design; (*b*) Aesthetic; (*c*) Archæology; (*d*) Science; (*e*) Construction; (*f*) Professional Practice; (*g*) Drawing.

An essay on an historical or theoretical subject is required in each term from all students following the historical or theoretical courses.

In all courses studio work goes hand in hand with oral teaching, with a view to the practical application of the theory, while at the same time affording opportunity for the acquisition of power in draughtsmanship and practice in design.

An arrangement has been concluded between McGill University and the Province of Quebec Association of Architects, whereby holders of the Bachelor of Architecture degree are admitted to practice in the Province after spending one year in the office of a member of the Association, and passing an examination in design, instead of having to take the regular prescribed entrance examinations. The office experience may be gained by working in the summer vacations.

FIRST YEAR.

SUBJECT	Subject Number	Lectures per week		Draughting Room and other periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
General History	Arts (13)	2	2	..	..	135
English	131	2	2	..	..	219
Algebra	192	5	5	..	..	224
Geometry	191	3	..	..	..	224
Trigonometry	193	..	3	..	..	224
Mechanics	194	2	2	..	..	224
Physics	Arts (42)	2	2	..	..	145
Physics Lab.	Arts (43)	..	..	1	1	145
Elements of Architecture	5	1	1	..	..	197
Architectural Geometry	18	1	1	..	..	203
Architectural Drawing	31	..	..	2	2	203
Freehand Drawing	36	..	..	2	2	203
Summer Work	..	..	..	..	..	204

SECOND YEAR.

Design I	1	..	..	2	2	197
Elements of Composition	6	1	1	..	..	198
Building Construction	24	1	1	..	..	201
Building Details	25	..	..	2	2	201
Structural Engineering, I	26	2	2	..	..	202
Struct. Eng. Draughting	27	..	..	1	1	202
History of Classic Architecture	14	2	2	..	..	199
Graphical Statics	82	..	1	..	..	209
Surveying	346	2	2	..	..	247
Mapping	348	..	..	1	1	248
Architectural Drawing	32	..	..	1	1	203
Freehand Drawing	37	..	..	2	2	203
Summer Work	..	..	..	..	..	204
Surveying Field Work	347	..	..	..	..	248

FOUR YEAR COURSE FOR STUDENTS ENROLLED PRIOR TO 1914-15.

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Draughting Room and other periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Design II	2	..	..	4	4	197
Theory of Design	7	1	1	..	..	198
Structural Engineering, I	26	2	2	..	..	202
Struct. Eng. Draughting	27	..	..	1	1	202
History of Mediæval or Renaissance Archt.†	15 or 16	2	2	..	..	200
Ornament and Decoration‡	9 and 10 or 11 and 12	1	1	1	1	199
Perspective	19	..	..	1	1	203
Hygiene	22	2	..	..	..	201
Heating and Ventilation	23	..	1	..	1	201
Architectural Drawing	33	..	..	1	1	203
Modelling	40	..	..	1	1	203
Summer Work	..	..	..	..	..	204

FOURTH YEAR.

Design III	3	..	..	6	8	197
Theory of Planning	8	1	1	..	..	198
History of Mediæval or Renaissance Archt.†	15 or 16	2	2	..	..	200
History of Modern Architecture	17	1	1	..	..	200
Structural Engineering, II	28	1	1	..	..	202
Structural Design	29	..	..	2	2	202
Engineering Law	175	1	1	..	..	223
Professional Practice	30	2	2	..	..	202
Architectural Drawing	34	..	..	1	..	203
Modelling	41	..	..	1	1	203

† The courses on Mediæval and Renaissance Architectural History, numbers 15 and 16, are given in alternate years.

During the Session 1915-16, the History of Renaissance Architecture will be given.

‡ Ornament and Decoration courses, numbers 9 and 10, and 11 and 12, are given in alternate years. During the Session 1915-16, numbers 9 and 10 will be given.

For summer reading see page 192.

II. Chemistry.

The course in Chemistry is arranged to give the student in the first two years a thorough knowledge of the fundamental principles of chemistry and physics, with sufficient mathematics to enable him to understand the theoretical parts of these subjects.

In the two subsequent years chemistry (inorganic, organic, analytical and physical) is taught both in its purely scientific aspects and in its relations to the various departments of commercial work. In the fourth year, students will specialize in either (a) inorganic *or* (b) organic chemistry, as indicated in the tabulated statement below. Special facilities are afforded for the prosecution of graduate research work in various branches of chemistry.

FIRST YEAR.

As in other Engineering Courses. For details, see page 169.

SECOND YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Analytic Geometry	197	3	..	..	..	224
Calculus	198	3	3	..	..	225
General Chemistry	51	3	3	..	..	204
Gen. Chemistry Lab.	53	..	..	5	..	205
Inorganic Qualitative Analysis	54	..	1	..	..	205
Inorganic Qualitative Analysis Lab.	55	..	..	..	5	205
Mechanics	83	..	3	..	..	209
Physics	315	2	2	..	..	246
Physics Lab.	316	..	..	1	1	246

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Secon Term	First Term	Second Term	
Engineering Economics	171	..	2	..	..	223
Geology, General	141	2	2	⅓	⅓	220
Inorganic Quant. Anal.	61	1	..	..	..	206
Inorganic Quant. Anal. Lab	62	..	..	6	6	206
Gen. Elementary Metallurgy	261	2	..	..	..	236
Mineralogy	142	2	2	..	..	220
Mineralogy, Determinat.	143	..	..	2	..	220
Organic Chemistry	56	3	2	..	..	205
Organic Chemistry Lab.	57	..	..	..	2	206
Physical Chemistry	58	..	2	..	..	206

FOURTH YEAR.

Applied Electro-Chemistry	69	2	..	..	..	208
Crystallography (opt.)	151	2	..	1	..	222
Engineering Law	175	1	1	..	..	223
Industrial Chemistry	68	2	2	..	..	208
Physical Chemistry and Lab	66	2	2	2	1	207
Fire Assay	263	..	..	2 (a)	..	236
Adv. Inorg. Chemistry	72	2 (a)	2 (a)	..	..	208
Inorg. Quant. Anal. and Lab	67	..	1 (a)	4 (a)	5 (a)	207
Ore Deposits (opt.)	148	..	4	..	..	221
Organic Chemistry	65	2 (b)	2 (b)	..	..	207
Organic Chem. Lab.	65	..	..	6 (b)	3 (b)	207
Food Chemistry	73	..	1 (b)	..	3 (b)	206
History of Chemistry	74	..	1	..	..	208

For summer schools, see page 192.

III. Chemical Engineering.

The aim of this course is to prepare the student for the duties of managing engineer in a chemical manufactory. As such he must not only be conversant with the chemical processes involved, but he may also be required to design and oversee the construction of new buildings and to direct the installation and use of machinery. Accordingly the course of study combines a considerable amount of engineering with the maximum of chemical training which can be attained without overpressure.

Between the second and third years students taking this course must attend a summer session of four weeks in the chemical laboratories.

In the third year specialisation commences, the time being about equally divided between chemical and engineering studies, and in the vacation between the third and fourth years all students must give at least six weeks to work in some chemical industry or to equivalent laboratory work satisfactory to the Professor of Chemistry.

In the fourth year the engineering studies are completed and the chemical studies which predominate are arranged in two alternative courses to meet the requirements of the students who cannot possibly study more than a few of the very varied chemical industries. These alternative courses fall broadly under one or other of two headings:—(*a*) inorganic, (*b*) organic, as indicated in the table below, and one or other of which the student will select. Should a student desire to prepare for an industry which requires more engineering knowledge than is provided in the regular course he may substitute additional engineering subjects for some of the chemical work. Details will be arranged on application to the Faculty through the Professor of Chemistry.

While every effort will be made to supply detailed information as to methods and plan of many of the important industries, and to provide facilities for experimentally carrying out the processes involved, the main aim will be devoted to the study of the principles which underlie economical production.

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 169 and 170.

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics	171	..	2	..	..	223
General Elem. Metall.	261	2	..	..	..	236
Inorg. Quant. Anal.	61	1	..	..	..	206
Inorg. Quant Analysis Lab.	62	..	..	3	3	206
Mech. Eng. and Lab.	226 and 228	2	2	1	1	229
Mineralogy	142	2	..	..	..	220
Mineral. Deter.	143	..	..	2	..	220
Ore Dressing (opt.)	292	..	2	..	..	240
Ore Dress. Lab. (opt.)	..	..	..	..	1	240
Organic Chemistry	56	3	2	..	..	205
Organic Chem. Lab.	57	..	..	..	2	206
Physical Chemistry	58	..	2	..	..	206
Strength of Materials	87	2	2	..	..	210
Strength of Mats. Lab.	88	..	..	..	1	210
Structural Design	90	..	1	..	1	211
Summer School, Inorg. Qual. Anal. and Lab.	54 and 55	..	..	..	..	205

FOURTH YEAR.

Elements of Elect. Eng.	111	2	2	..	..	217
Elect. Eng. Lab.	112	..	..	1	1	217
†Engineering Law (alt.)	175	1	1	..	..	223
†Hydraulics	101	1	..	½	..	214
Industrial Chemistry	68	2	2	..	..	208
Phys. Chem. and Lab.	66	2	1	2	1	207
†Military Engineering (alt.)	..	1	1	..	..	..
Applied Electro-Chemistry	69	2	..	..	..	208
Electro-Metal. (opt.)	275	..	2	..	..	239
Electro-Metal. Lab. (opt.)	276	..	..	..	1	239
Fire Assay	263	..	..	2 (a)	..	236
Adv. Inorg. Chemistry	72	2 (a)	2 (a)	..	..	208
Inorganic Quant. Anal. and Lab.	67	..	1 (a)	5 (a)	5 (a)	207
Org. Chem. and Lab.	65	2 (b)	2 (b)	5 (b)	3 (b)	207
Food Chemistry	73	..	1 (b)	..	3 (b)	206
History of Chemistry	74	..	1	..	..	208

† Military Engineering (400) is alternative with Engineering Law (175) and Hydraulics (101).

(a) Inorganic option. (b) Organic option.

IV. Civil Engineering.

In the third year of this course the strength of materials is a principal subject of study. The knowledge of this subject and of mechanics already gained, is applied to simple problems in the analysis of stresses in framed structures, and to the design of foundations, girders, columns, roof-trusses and the like. Courses in surveying extend throughout the second and third years, with summer school sessions and field-work at the beginning of the second, third and fourth years. Courses in railway and municipal engineering run through the third and fourth years.

In the fourth year comprehensive courses are given in geodesy, hydraulics, strength of materials and theory of structures. Much of the time in this year is, however, devoted to the details of bridge design, as it is thought that a thorough knowledge of this subject is a suitable preparation for work in the entire field of structural design.

Facilities are afforded to graduate students who wish to engage in research work in the strength and elasticity of materials and the like, or in more advanced work in structural design than can be overtaken in the undergraduate courses. A post-graduate course in practical astronomy and geodesy will also be provided for any who may desire to specialize in geodetic work.

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 169 and 170.

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Calculus (optional)	201	1	1	..	..	225
Descriptive Geometry	350 and 351	1	1	1	1	216
Eng. Economics	171	..	2	..	..	223
Foundations & Masonry	89	1	..	1	..	211
Geology, General	141	2	2	½	½	220
Mapping	355	..	..	2	2	252
Mechanical Eng.	226	2	2	..	..	229
Mechanical Eng. Lab.	228	..	..	1	1	230
Mechanics	86	2	..	..	..	210
Municipal Engineering	91	1	1	..	..	211
Railway Engineering	372	2	2	..	..	251
Strength of Mats. & Lab.	87 and 88	2	2	..	1	210
Structural Design	90	..	1	..	1	211
Surveying	353	2	2	..	..	248
Surveying Fieldwork	354	..	..	..	..	248

FOURTH YEAR.

Bridge Design	96	2	2	2	2	212
Elements of Electrical Engineering	111	2	2	..	..	217
Electrical Eng. Lab	112	..	..	1	1	217
†Electric Railways (alt.)	389	..	2	..	..	255
†Engineering Law (alt.)	175	1	1	..	..	223
Geodesy	359	2	..	..	..	248
Geodetic Laboratory	360	..	..	1	..	249
Geodetic Fieldwork	361	..	..	..	..	249
Hydraulics	97	2	..	..	..	213
Hydraulic Laboratory	98	..	..	1	..	213
†Hydraulic Mach. (alt.)	99	..	2	..	..	213
†Military Engineering (alt.)	400	2	2	1	..	..
†Municipal Eng. (alt.)	100	..	2	..	..	214
Railway Engineering	388	2	..	..	..	255
Strength of Materials	95	2	1	..	1	212
Theory of Structures	94	1	2	1	2	212

† Military Engineering (400) is alternative with Engineering Law (175) and Municipal Engineering (100) *or* Electric Railways (389) *or* Hydraulic Machines (99).

For summer school, see page 192.

V. Electrical Engineering.

The electrical studies of the third year embrace a consideration of current flow; the principles of electro magnetism; electrical measurements; the design and performance of electrical machinery.

The fourth year is devoted principally to electrical work, and includes lectures and laboratory work on variable and alternating current phenomena, the principles of action and the design of electrical machinery, electric lighting and systems of power distribution, central station design and operation, urban and interurban railways, hydro-electric power development, electro-chemistry, electro-metallurgy and wireless telegraphy.

Occasional visits are made to electrical works and power plants.

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details see pages 169 and 170.

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., period per week		For details see page
		First Term	Second Term	First Term	Second Term	
Electrical Engineering	113	2	2	..	..	216
Electrical Engin. Lab	114	1	1	2	2	216
Calculus	201	1	1	..	..	225
Machine Design	225	2	2	..	..	229
Mechanical Drawing	232	..	..	1	1	231
Mech. Eng. and Lab	223, 226	2	2	2	1	229
Mechanics	86	2	..	..	..	210
Mech. of Machines	224	2	2	⅓	⅓	228
Physics	320	1	1	..	..	246
Physics Lab	321	..	..	2	2	246
Strength of Mats. & Lab.	87, 88	2	2	..	1	210
Sum. Sch. Mech. Draw.	230	..	..	..	..	230
Sum. Sch. Shopwork	233, 234	..	..	..	..	231
Summer Sch. Physics	317	..	..	..	..	246

FOURTH YEAR.

Applied Elec. Chem	69	2	..	..	..	208
Applications of Electricity	123	2	2	..	..	219
Electro-Metallurgy	275	..	2	..	..	239
Electrical Designing	122	2	2	1⅓	1⅓	218
Electrical Engineering	117	3	3	..	..	217
†Elect. Eng. Lab. (alt.)	118	2	2	3	3	217
Elect. Light and Power Distribution	120	2	..	1	..	218
Electric Traction	121	..	2	..	1	218
†Engineering Law (alt.)	175	1	1	..	..	223
Hydraulics	97	2	..	..	..	213
Hydraulics Lab	98	..	..	1	..	213
Machine Design	243	2	..	..	..	233
†Military Engin. (alt.)	400	2	2	1	..	...
Thermodynamics	229	2	2	..	..	230

† Military Engineering (400) is alternative with Engineering Law (175) and Elect. Eng. Lab. 118.

For summer schools, see page 192.

VI. Mechanical Engineering.

The subjects of instruction in this Department are of interest to students who are likely to take up work connected with—

(*a*) The constructive or manufacturing side of mechanical engineering, including industrial or production engineering; (*b*) steam engineering; (*c*) gas engine and producer work; (*d*) power plant engineering; (*e*) heating and ventilation of buildings and factories; (*f*) locomotive engineering; (*g*) marine engineering and ship propulsion.

Courses are given during the third and fourth years in mechanical engineering as applied to questions connected with power installations and prime movers. The earlier portion of this work is supplementary to the instruction given in thermodynamics, mechanics of machines and machine design, and leads up to the more advanced or technical subjects of power plant design, industrial plant design, works organization, locomotive engineering and marine engineering.

Students in the Department of Mechanical Engineering take systematic work in electrical engineering during the third year.

Instruction in workshop practice is given in each of the four years. This work is of a systematic nature, and is intended to prepare for, but by no means to replace, that practical experience of manufacturing operations on a commercial basis which every mechanical engineer must obtain for himself.

The course in thermodynamics deals more particularly with the theory of heat engines, and time is assigned for additional graphical and experimental work in connection with the subject.

Arrangements are made for occasional visits to power plants and manufactories of importance.

FIRST AND SECOND YEARS

As in other Engineering Courses (see pages 169 and 170), with additional course in September for second year (page 192).

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Eng. Economics	171	..	2	..	..	223
Elements of Elect. Eng.	111	2	2	..	..	217
Elect. Eng. Lab.	112	..	..	1	1	217
Machine Design	225	2	2	..	..	229
Mechanical Drawing	231	..	..	2	1	231
Mechanical Eng. & Lab.	227, 228	3	3	1	1	229
Mechanics	86	2	..	..	..	210
Mechanics of Machines	224	2	2	⅓	⅓	228
Shopwork	235, 236	..	..	1	1	231
Shop Processes and Management	237	1	1	..	..	232
Strength of Mats. & Lab.	87, 88	2	2	..	1	210
Structural Design	90	..	1	..	1	211
Thermodynamics	229	2	2	..	..	230
Sum. Sch. Mech. Draw.	230	..	..	..	..	230
Sum. Sch. Shopwork	233, 234	..	..	..	..	231
Sum. Sch. Physics	317	..	..	..	..	246

FOURTH YEAR.

Designing	241	..	..	1	1	232
†Engineering Law (alt.)	175	1	1	..	..	223
Experimental Eng.	257	1	1	..	..	234
Hydraulics and Lab.	97, 98	2	..	1	..	213
**Hydraulic Mach. (alt.)	99	..	2	..	..	213
**Man. Plant Des. (alt.)	253	..	2	..	1	235
Machine Design	242	2	2	..	..	233
Power Plant Design	244	1	1	1	1	233
*Heat. and Vent. of Buildings	247	1	1	..	..	233
*Locom. Eng.	245	1	1	..	..	233
*Marine Engineering	246	1	1	..	..	233
Mech. Eng. Lab.	249	..	..	3	3	234
Mech. of Mach.	240	2	2	⅓	⅓	232
†Military Engineering (alt.)	400	2	2	1	..	..
Works Organization and Accounting	254	1	1	..	..	235
Shopwork	252	..	..	1	1	235
Thermodynamics	251	2	2	..	..	234

* One of the three subjects must be taken.

** One of the subjects, 253 *or* 99, must be taken unless Military Eng. (400) is chosen.

† Military Engineering (400) is alternative with Engineering Law (175) and Hydraulic Machinery (99) *or* Man. Plant Design (253).

VII. Metallurgical Engineering.

This course is designed for students intending to enter metallurgical works, such as iron or steel works or smelters. It includes instruction in the engineering, chemical, metallurgical and ore-dressing studies required by practising metallurgists.

A certain amount of mining is included in the third year curriculum in order to show the relation between mining and metallurgy; but the course is not intended for students wishing to become mining engineers.

Students who wish to specialize on the chemical side of metallurgy are recommended to select Course VIII.

In the third year of the Metallurgical Engineering Course instruction is given in chemistry, assaying, geology, mineralogy, metallurgy, mining, ore-dressing, and mechanical, structural, and business engineering.

Between the third and fourth years there is a summer school in metallurgical works.

In the fourth year instruction is given in chemistry, electrical engineering, law, hydraulics, metallurgy and ore-dressing. Metallurgical designing and laboratory work form important parts of the course.

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 169 and 170.

Before the third year there is a four weeks' summer school in qualitative analysis in the chemical laboratory, beginning about the first of September.

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics	171	..	2	..	..	223
Fire Assaying, Part I	263	1	..	2	..	236
Geology, General	141	2	2	⅓	⅓	220
Gen. Element. Metall.	261	2	..	..	½	236
Inorg. Quan. Anal. & Lab.	61, 62	1	..	2	..	206
Mech. Eng. & Lab.	226, 228	2	2	1	1	229
Metall. Calculations	265	1	1	..	..	237
Metall. Colloquium	266	1	1	..	..	237
Metallurgical Lab.	262	..	..	..	2	236
Mineralogy	142, 143	2	2	2	..	220
Mining Engineering	291	..	2	..	..	240
Ore Dressing and Lab.	292	2	2	..	½	240
Strength of Materials and Laboratory	87, 88	2	2	..	1	210
Structural Design	90	..	1	..	1	211
Summer School Inorg. Qual. Anal. and Lab.	54, 55	..	..	..	..	205

FOURTH YEAR

Elem. Elect. Eng. & Lab.	111, 112	2	2	1	1	217
Electro-Metal. & Lab.	275, 276	..	2	..	1	239
†Engineering Law (alt.)	175	1	1	..	..	223
General Metallurgy	271	2	2	..	..	238
Hydraulics	101	1	..	½	..	214
Industrial Chemistry	68	2	..	..	..	208
Inorganic Quant. Anal.	67	1	..	4	..	207
†Metallurgy	272	3	3	..	..	238
Metallurgy Colloquium	277	1	1	..	..	239
†Metall. Lab.	274	..	..	½	3	239
Metall. Mach. & Design	278	..	..	..	2	239
†Military Engineering (Alt.)	400	2	2	1	..	...
Ore Dressing	299, 300	2	..	1	..	241
Ore Deposits	148	..	4	..	..	221
Sum. Sch. Metall. Works	267	..	..	..	..	237
" " Fire Assaying Part II	264	..	..	..	..	237

† Military Engineering (400) is alternative with Engineering Law (175) and one hour per week in Metallurgy (272) and one-half period first term Metal. Lab. (274).

Note.—Metallurgical works, at end of third year. See page 237.

For summer schools see page 192.

VIII. Metallurgy.

This course is designed for students who intend to devote their attention mainly to the chemical side of metallurgy with the object of becoming analytical or consulting metallurgical chemists. The first two years are the same as in the Chemistry Course. In the third and fourth years instruction is given in analytical chemistry and assaying, theoretical, inorganic and electro-chemistry, metallurgy, mineralogy, geology, ore-dressing and mechanical engineering. Certain alternative subjects are offered in the fourth year.

FIRST YEAR

As in other courses. For details, see page 169.

SECOND YEAR

As in Course II, Chemistry. For details, see page 174.

Before the third year a summer school in fire-assaying is given. This will be held in September. For details, see subjects 263 and 264.

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics	171	..	2	..	..	223
Geology, General	141	2	2	⅓	⅓	220
Gen. Element. Metal	261	2	..	..	½	236
Inorg. Quant. Anal. & Lab	61, 62	1	..	4	4	206
Mech. Eng. & Lab	226, 228	2	2	1	1	229
Metall. Calculations	265	1	1	..	..	237
Metall. Colloq. & Libr'y	266	1	1	⅔	..	237
Metallurgical Lab	262	..	..	..	2	236
Mineralogy & Lab	142, 143	2	2	2	..	220
Ore Dressing & Lab	292	2	2	..	½	240
Physical Chemistry	58	..	2	..	..	206
Sum. Sch. Fire Assaying	263, 264	..	..	..	..	236

FOURTH YEAR

Electro-Chemistry	69	2	..	1	..	208
Electro-Metall. & Lab	275, 276	..	2	..	1	239
†Engineering Law (alt.)	175	1	1	..	..	223
General Metallurgy	271	2	2	..	..	238
Industrial Chemistry	68	2	..	..	..	208
*†Inorg. Chemistry (alt.)	72	2	2	..	..	208
Inorg. Quant. Anal	67	1	..	3	2	207
Metallurgy	272	3	3	..	..	238
Metallurgy Colloquium	277	1	1	..	..	239
Metall. Lab	279, 274	..	..	3	2	239
Metall. Mach. & Design	278	..	..	..	2	239
†Military Engineering (alt.)	400	2	2	1	..	..
Ore Dressing & Lab	299, 300	3	..	1	..	241
*†Ore Deposits & Economic Geology (alt.)	148	1	4	..	..	221
*†Petrog. and Lab. (alt.)	147	1	..	1	1	221
Sum. Sch. Metall. Works	267	..	..	..	..	237

† Military Engineering (400) is alternative with Engineering Law (175) and Inorganic Chemistry (72) *or* Ore Deposits (148) *or* Petrog. Lab. (147).

Note.—Metallurgical works, at end of third year—see fourth year tables.

* Subjects 72, 147 and 148 are alternative; one of the three being required.

IX. Mining Engineering.

Specialization does not begin until the third year, when elementary courses in both mining and metallurgy are given and thorough courses in ore-dressing and fire-assaying, but the chief work is still in such fundamental subjects as applied mechanics, mechanical engineering, chemistry, geology, and mineralogy.

The fourth year, on the other hand, is very largely given up to detailed work in mining, ore-dressing, economic geology, metallurgy and electrical engineering, and two elective alternative lines of study are offered, both including the essential subjects of the course and both leading to the degree in Mining Engineering, but each permitting of a considerable amount of specialization.

These alternative or sub-courses are:—(*a*) Mining Engineering and Geology; (*b*) Mining and Metallurgical Engineering.

In all cases the fourth year work includes the equivalent of at least two full days per week in the laboratories and drafting room of the mining department, and in the second term each student is required to prepare a thesis giving the result of an extended individual experimental investigation.

A field school in mining, ore dressing and geology is held between the third and fourth years, the work ordinarily beginning immediately after the close of the April examinations. From four to six weeks are spent in travel, during which a number of mines and concentrators are visited and critically studied under the direction of the departmental staff. Attendance on this school is obligatory except in the case of men who can show evidence of having taken advantage of equivalent opportunities elsewhere.

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 169 and 170.

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Econ	171	..	2	..	..	223
Fire Assaying	263	1	..	2	..	236
Geology, General	141	2	2	$\frac{1}{3}$	$\frac{1}{3}$	220
Inorg. Qual. Anal. & Lab.	59, 60	1	..	2	2	206
Mine Mapping	293	..	..	1	..	240
Mech. Eng. & Lab.	226, 228	2	2	1	1	229
Gen. Element. Metall.	261	2	..	..	$\frac{1}{2}$	236
Mineralogy	142	2	2	..	..	220
Mineralogy, Determin.	143	..	..	2	..	220
Mining Engineering	291	..	2	..	..	240
Ore Dressing & Lab.	292	2	2	..	$\frac{1}{2}$	240
Strength of Mats. & Lab.	87, 88	2	2	..	1	210
Struct. Design	90	..	1	..	1	211
Surveying	352	2	..	..	..	248
Surveying Field Work	354	..	..	..	..	248

FOURTH YEAR

Elem. of Elec.Eng.&Lab.	111, 112	2	2	1	1§	217
†Engineering Law (alt.)	175	1	1	..	..	223
Geology of Canada	149	1	..	..	..	222
*Geology, Historical	152	1*	1*	..	1*	222
Hydraulics	101	1	..	$\frac{1}{2}$	..	214
Metallurgy, General	271	2	2	..	..	238
†Military Eng. (alt.)	400	2	2	1	..	...
Mineral Analysis	71	..	..	4	..	208
Mining Engineering	297	3	3	..	..	240
Mining Mach. (alt.)	298	1†	1* or 2§	..	2	241
Mining Colloquium	302	..	1	..	..	241
Ore Dep. & Econ. Geol.	148	1	3† or 4	..	..	221
Ore Dressing & Milling	299	2	..	..	..	241
Ore Dress. Lab. (alt.)	300	..	..	$\frac{1}{3}$* or $1\frac{1}{2}$§	..	241
Ore Dress. Lab. & Thesis	301	..	..	..	3	242
Petrography & Lab.	146	1	..	..	1	221
*Petrograhy Advanced	147	..	..	1*	..	221
Mining Field School	294	..	..	..	..	244
*Field Geology	154	..	..	..	..	222

† Military Engineering (400) is alternative with Engineering Law (175) and Mining Machinery (298), 12 lectures; and Ore Deposits (148), 12 lectures.

* For students taking the Mining Geology Alternative Course only.

§ For students taking the Mining Engineering Alternative Course only.

Note:—Mining Field work at end of third year. See page 244.

Surveying Field Work, beginning Sept. 6th, 1915. See page 249.

X. Railway Transportation.

(This course may be discontinued after the close of the session 1916-1917.)

The courses in the department of railways are designed for students who will enter:—

(1) The Operating Department or Executive Offices.
(2) The Mechanical Department.
(3) The Engineering Department.

The work of the first and second years is identical with that of the other courses in the Faculty of Applied Science; that of the third and fourth years is shown opposite.

Students in the department will, so far as possible, enter the employ of a railway company during the summer vacations, with the intention of continuing their connection with the company after graduation.

MECHANICAL ENGINEERING COURSE.

The work of the first, second and third years will follow that outlined for Mechanical Engineering students (see pages 169, 170 and 183). During the fourth year opportunity will be given for specializing in locomotive construction and operation.

CIVIL ENGINEERING COURSE.

Students in this course will follow that outlined for Civil Engineering students (page 179), and, in addition, will be required to engage in practical work during the vacations under the supervision of the department of railways.

RAILWAY TRANSPORTATION COURSE.

(Operating and Executive.)

First and second years as in other courses. See pages 169 and 170.

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Elements of Political Economy	172	2	2	..	..	251
Engineering Law	175	1	1	..	..	223
English	135	2	2	..	..	251
Freight Service	371	..	2	..	..	251
*Machine Design (alt.)	225	2	2	..	..	229
Mapping	355	..	..	2	2	252
Mech. Eng. Lab.	228	..	..	1	1	230
Mechanics	86	2	..	..	..	210
Ry. Organ. & Acct.	374	1	1	..	..	252
Ry. Engineering	372	2	2	..	..	251
Ry. Mech. Engineering	373	2	2	..	..	252
Strength of Mats. & Lab.	87, 88	2	2	..	1	210
Structural Design	90	..	1	..	1	211
*Shorthand (alt.)	375	2	2	..	..	252
Telegraphy	376	..	..	1	1	252
Surveying Fieldwork	354	..	..	..	..	248

FOURTH YEAR

Accounting	379	1	1	..	..	252
††Conducting Transportation (alt.)	392	2	2	..	..	255
Elements of Elec. Eng.	111	2	2	..	..	217
Electrical Eng. Lab.	112	..	..	1	1	217
Electric Railways	389	..	2	..	..	255
English	138	1	1	..	..	253
Freight Service	380	..	1	..	..	253
†Military Engineering (alt.)	400	2	2	1	..	...
Passenger Service	385	1	..	..	..	254
†Physical Geog. (alt.)	150	1	1	..	..	254
Railway Economics	177	2	2	..	..	252
Railway Engineering	388	2	..	..	..	255
Railway Law	176	1	1	..	..	254
Railway Mech. Eng.	386	2	2	..	..	254
†Ry. Mech. Eng. Des.	387	..	..	1	1	254
Railway Operation	381	2	2	..	..	253
Signals and Interlocking	382	1	1	..	..	253
Signal " " Design	384	..	..	1	1	253
††Shorthand (alt.)	390	2	2	..	..	255
Telegraphy	391	..	..	1	1	255

†Military Engineering (400) is alternative with Railway Mechanical Engineering Design (387) and Physical Geography (150). *375 or 225 must be taken. ††390 or 392 must be taken.

For summer courses, see page 192.

SUMMER SCHOOLS.

Undergraduates are required to attend Summer Sessions as specified below. The work is set forth in detail under the subject numbers referred to.

Classes will begin on September 6th, and will close on October 1st, 1915.

COURSE	Students entering Second Year		Students entering Third Year		Students entering Fourth Year	
	Subject No.	Page	Subject No.	Page	Subject No.	Page
Architecture	347	248	..	...	...	...
Chemistry	...	...	263, 264	236, 237	...	...
Chemical Engineering	347	248	54, 55	205	...	...
Civil Engineering	347	248	354	248	361	249
Elect. Engineering	347	248	230, 233, 234, 317	230, 231 231, 246	...	...
Mechan. Engineering	347	248	230, 233, 234, 317	230, 231 231, 246	...	...
Metallurgical Eng	347	248	54, 55	205	...	...
Metallurgy	...	...	263, 264	236, 237	...	..
Mining Engineering	347	248	354	248	...	...
Transportation	347	248	354	248	...	...
ADDITIONAL SUMMER WORK REQUIRED.						
Architecture	46	204	46	204	46	204
*Mining Engineering	..	...	..	...	294	244
Mining Eng. (alt.), (a)	..	...	..	...	154	222
Metallurgical Eng	..	...	..	...	267, 264	237
*Metallurgy	..	...	..	...	267	237

* Note:—These schools are held during the month of May.

SUMMER ESSAYS AND SUMMER READING.

SESSION 1915-16.

1. For Students Entering the Second Year.

All students entering the second year, except those in the Course in Architecture (see below) will be required to read the following English classics*:—

Southey's "Life of Nelson."
Lamb's "The Essays of Elia."
Kingsley's "Hereward the Wake."
Dickens' "David Copperfield."
George Eliot's "Adam Bede."

Students in the course in Architecture must read the following books:—

Blomfield, R.—"The Mistress Art." London, 1908, (Edward Arnold.)
C. M. Galey.—"Classic Myths."

Students in the course in Architecture must also either spend five weeks in the office of an architect or contractor, or prepare thirty-five reasonably large free-hand sketches in any desired medium.

All students will be required to pass an examination in the summer reading at the opening of the session. A maximum of 100 marks will be allowed for this reading.

2. For Students Entering the Third Year.

Students entering the third year, except those in the course in Architecture (see below), may

(a) Prepare an essay, or
(b) Follow a course of summer reading.

---

*The books named below are published in Everyman's Library. (Dent.)

(a) Students will be required to pass an examination in the summer reading at the opening of the session. The same number of marks are allotted for this reading as for the essay.

The summer reading which may be substituted for the summer essay consists of

Shadwell's Industrial Efficiency (Longmans, Green & Co., 1909.)

(b) The essay must in all respects follow the specifications laid down for essays submitted by students entering the fourth year, except that it may be shorter.

All rules and regulations governing the fourth year essays, as set forth below, also apply to the third year essays. See section 3, paragraph 1, page 195.

Students in Electrical Engineering, electing to write an essay and who are not engaged during the summer on any engineering, scientific or industrial work which would afford a subject for an essay, may write on one of the following subjects:—

(1) The application of Electric Power to Industrial Establishments.
(2) Relation between Fundamental, Electrical and Mechanical Units.

Students in Mining Engineering who are for any reason unable to write on some engineering work of which they have personal knowledge will be required to take the summer reading, as prescribed under (a).

The following subjects for essays are suggested as suitable for Mechanical Engineering students who are not engaged during the summer in engineering work:—

(1) Mechanical stokers.
(2) Manufacture of high speed tool steels.
(3) Field artillery.

Students in the course in Architecture are not permitted to submit an essay, but must read the following books:—

Benvenuto Cellini's Autobiography. (Everyman's Library, Dent.)

Hirn, Yrjö.—"The Origins of Art." (London, 1900. MacMillan Company.)

Students in the course in Architecture must either spend five weeks in the office of an architect or contractor, or prepare thirty-five reasonably large free-hand sketches in any desired medium.

3. For Students Entering the Fourth Year.

Students entering the fourth year, except those in the course in Architecture (see below), are required to prepare an essay during the summer, to be handed in at the Dean's Office not later than 5 p.m. on Monday, October 11th. A maximum of 100 marks, or nearly 10 per cent. of the total marks for the year, is given for these essays.

The essays should be from 2,000 to 5,000 words in length. They should be illustrated by drawings, sketches, and (when desirable) by photographs, specimens, etc.

No essay compiled from books alone will be accepted unless the student has obtained in advance the permission of the head of his department to prepare such an essay.

The *most acceptable subject for an essay* is a critical description of the work on which the student is engaged during the summer, but a description of any engineering, scientific or industrial work with which he is familiar will be accepted.

Students in Electrical Engineering, who are not directly connected with any such work, may write on one of the following subjects:—

(a) Long Distance Power Transmission.
(b) Variable Speed Drives for Machine Tools.
(c) The Substitution of Electricity for Steam on Railroads.

Students in Mechanical Engineering, who are not directly connected with any such work may write on one of the following subjects:—

(1) Submarines.
(2) Fire Prevention and Protection in Industrial Plants.
(3) The Comparison of Steam and Producer Gas Engines, as regards cost of operation and reliability and satisfactory operation.

The essays must be well expressed and written in precise, well-chosen, grammatical English. Advantage may be taken of any source of information in the preparation of the essays, but due acknowledgment must always be made of all the authorities and books which have been consulted. In judging of the value of the essays, account will be taken not only of the subject matter, but also of style and literary construction.

All essays when handed in will become the property of the department concerned and will be filed for reference. Students may submit duplicate copies of their essays in competition for the students' prizes of the Canadian Society of Civil Engineers, or of the Canadian Mining Institute.

The essays must be written on paper of substantial quality and of a size approximately 8½ x 11 inches.

Students in the course in Architecture are not permitted to submit an essay, but must read the following books:—

Benvenuto Cellini's Autobiography. (Everyman's Library. Dent.)

Hirn, Yrjö.—"The Origins of Art." (London, 1900, MacMillan Company.)

They will be required to pass an examination on this reading at the opening of the session. A maximum of 100 marks will be allowed for the work.

In addition to this reading, students in the course in Architecture must either spend five weeks in the office of an architect or contractor, or prepare thirty-five reasonably large free-hand sketches in any desired medium.

SUBJECTS OF INSTRUCTION.

N.B.—The following courses are subject to such modifications during the year as the Faculty may deem advisable.

Department of Architecture.

PROFESSORS:—{ RAMSAY TRAQUAIR (in charge of Department).
PERCY E. NOBBS.

ASSOCIATE PROFESSOR:—THOMAS W. LUDLOW.

LECTURERS:—{ M. C. J. BEULLAC.
PHILIP J. TURNER.
H. M. LAMB.

INSTRUCTOR:—H. HÉBERT.

DEMONSTRATOR:— ————————.

A.—Design.

Students register for second, third or fourth year Design according to their year in the University. They are graded for purposes of instruction into grades A, B and C, and are promoted in these grades according to ability. All students before receiving the degree must pass fourth year Design and qualify in grade C.

1. GRADE A. Simple problems in monumental composition, not involving complex planning.

2. GRADE B. Designs for single buildings, or for small groups of buildings devoted to one object.

3. GRADE C. Problems involving complicated planning, the grouping of parts and the disposition of groups of buildings. The diploma design for graduation is executed in the second term of the fourth year in this grade. Prof. Traquair, Prof. Nobbs and Mr. Ludlow.

B.—Aesthetic.

The theoretical courses that follow are intended to develop a sense of critical judgment in the student, and to emphasize the fundamental principles of composition and design.

5. THE ELEMENTS OF ARCHITECTURE (24 lectures).

The five orders of Vignola, pedestals, pediments, intercolumniation and superposition of orders, arches, vaults, domes, roofs, openings, walls, and stairs. Mr. Ludlow.

6. THE ELEMENTS OF COMPOSITION (24 lectures).

Analogies in the arts, proportion, scale, expression, decoration, massing, unity, symmetric and asymmetric grouping, individuality, horizontality and verticality. General rules of composition in plan; architectural acoustics and the æsthetic properties of materials. Mr. Ludlow.

Reference Book:—Eléments et théorie de l'Architecture, Gaudet.

7. THEORY OF DESIGN (24 lectures).

(*a*) *Æsthetic Practice*:—Pure design; the function of ornament; the moral logic of ornamental motif; the material logic of ornamental treatment; evolution of form; the placing of ornament; classification of significant ornament; (*b*) *Æsthetic Theory*:—The history of æsthetic enquiry; the phenomena of perception, pleasure, pain, and expression; the art impulse, and the relation of beauty to the arts; subject, emotional content and medium in works of art; the criteria of excellence. Prof. Nobbs.

Books:—The Mistress Art, Blomfield; The Fine Arts, Baldwin Brown.

8. THEORY OF PLANNING (24 lectures).

(*a*) *Elements of Planning*:—The relation of planning to external compositions; dimensions and arrangements, scale, aspect, and prospect; (*b*) *Domestic Buildings*:—Residential architecture of all types, stables, garages, etc.; (*c*) *Ecclesiastical Art*:—Church plans in relation to the service; (*d*) *Special Types*:—Fire stations, baths, hospitals, schools, factories, libraries, etc.; (*e*) *Public Buildings*:—Town halls, municipal buildings, court houses, Parliament buildings, large halls. Prof. Nobbs.

Text-book:—The Principles of Planning Buildings, Marks.

ORNAMENT AND DECORATION (48 lectures and 48 drafting periods), 9, 10, 11 and 12.

9. DECORATIVE HERALDRY. The place of heraldry in the arts; the laws of heraldry, heraldic art of different periods; modern practice and tendencies.

Text-book:—Decorative Heraldry, Eve. *Reference*:—The Art of Heraldry, Fox-Davies.

10. ORNAMENT IN FORM. Plaster work, terra cotta, stone carving, architectural sculpture, wood carving and furniture design are dealt with historically from the point of view of the evolution of form in distinctive materials influenced incidentally by the prevailing tastes of different periods.

Reference Books:—Plastering, plain and decorative, Millar; The Art of the Plasterer, Bankarb; Mediæval Figure Sculpture in England, Prior.

11. METAL WORK. Wrought iron work, cast iron work and bronze, beaten metal work in copper, brass and silver are dealt with technically and historically.

Reference Books:—English and Scottish Wrought Iron Work, Murphy; Ironwork, Starkie Gardner; Leadwork, Lethaby.

12. COLOUR DECORATION. Stained glass, mosaic of various kinds, inlays, the use of coloured materials in external and internal design, mural decoration, and the analysis and construction of pattern. Prof. Traquair.

Reference Books:—Vitraux, Merson; Windows, Day.

C.—Archæology.

GENERAL HISTORY (50 lectures).

13. MEDIAEVAL AND MODERN EUROPE. For particulars of the course, which constitutes the second year history course in the Faculty of Arts, see page 135. Dr. Fryer.

14. ANCIENT AND CLASSIC ARCHITECTURE (48 lectures).

The architecture of the ancient Egyptians, Chaldeans, Assyrians and Persians; the Minoan civilization; the architec-

ture of the Dorian and Ionian Greeks, with special attention to the refinement of form in Hellenic art; the architecture of Rome and Byzantium to the fall of the Byzantian Empire. Prof. Traquair.

15. Mediaeval Architecture (48 lectures).

The rise of the Romanesque schools, from the decline of the Western Roman Empire to the XI century; the evolution of ecclesiastical architecture in France and England to 1500 A.D.; the Gothic schools of Europe and the evolution of military and civil architecture. Prof. Traquair.

16. Renaissance Architecture (48 lectures).

The beginning of the Renaissance in Italy and its influence on architecture from 1400 A.D. to 1600 A.D.; the Renaissance in France from Francis I. to the Revolution; the earlier and later phases of the Renaissance in England and English architecture during the XVIII century. Prof. Traquair.

17. Modern Architecture (24 lectures).

The Gothic revival in England; the influence of Pugin, Ruskin and Morris and the Preraphaelites; the Arts and Crafts movement; the eclectic schools; Shaw and the Free-Classicists; taste in Europe during the XIX century; the classic schools and the official school; the national revivals in Russia and Germany; the Secession and the "Art Nouveau"; the colonial traditions of New England and the Spanish and French districts; the Beaux Arts influence; the English influences; the modern school; city planning in Europe and America. Prof. Traquair.

Text-books:—Classic: The Architecture of Greece and Rome, Anderson and Spires; Mediæval: Gothic Architecture in England, Bond; Mediæval Architecture, Power; Italian Renaissance Architecture, Anderson; Renaissance, French Renaissance Architecture, Ward; Early Renaissance Archi-

tecture in England, Gotch; A Short History of Renaissance Architecture in England, Blomfield; General: A History of Architecture, Banister Fletcher; The Growth of the English House, Gotch.

D.—Science.

MATHEMATICS 191, 192, 193, 194, Algebra, Geometry, Trigonometry and Mechanics. For full particulars, see page 224.

42 and 43. PHYSICS AND PHYSICS LABORATORY (48 lectures and 24 periods).

The instruction includes a fully illustrated course of experimental lectures on the general principles of physics, embracing the laws of energy, heat, light and sound. Prof. Eve.

346, 347 and 348. SURVEYING. (Full course: 4 weeks field school, 48 lectures and 24 draughting periods, see page 247.)

22 and 23. HYGIENE OF BUILDINGS (24 lectures in first term, 12 lectures and working out of one graphical problem in second term).

22. Light and air, water, sanitary plumbing, sewage disposal. First term. Dr. Starkey.

23. The heating and ventilation of buildings. Second term. Mr. McKergow.

E.—Construction.

The second year work covers the ordinary building trades and detailing where calculations of a complicated kind are not involved. The third year work deals with structural problems involving calculation, while in the fourth year, problems in structural design are worked out.

24 and 25. BUILDING CONSTRUCTION AND BUILDING DETAIL (24 lectures, 48 draughting periods).

Building materials, brickwork, masonry, carpentry, roofing, etc.; joinery of doors, windows, etc., and the finishing trades, such as plastering, painting and plumbing; underpinning, shoring, centering and forms. General working drawings are prepared, and building works in progress are visited. Mr. Turner.

26 and 27. STRUCTURAL ENGINEERING I AND STRUCTURAL ENGINEERING (Draughting) I (48 lectures and 24 draughting periods).

Steel Construction:—Ores and manufacture of iron and steel; theory of beams, cases of loading; designing, detailing and shop work of beams; *Columns*:—theory, calculations, eccentric loads; single-sections and built-up steel columns; cast iron columns, beam box girders, plate girders, calculation; steel frame work for buildings; specifications for and inspection of structural steel work; wind bracing and fire-proofing; *Foundations*:—Soils, beds, timber and concrete piles, pile driving and pile driving machinery; foundations on compressive soils; concrete footings, timber spread footings, steel spread footings; masonry footings; loads on buildings; strength of masonry, stability of buildings. Mr. Beullac.

28 and 29. STRUCTURAL ENGINEERING II AND STRUCTURAL DESIGN (24 lectures and 48 draughting periods).

Structural Engineering II.—Analysis of stresses in trusses, graphical statics; design of roof trusses and mill-building; theory and practice of reinforced concrete building construction, including floor-slabs, beams, girders and columns; foundations and retaining-walls; theory of masonry arches. Mr. Lamb.

F.—Architectural Practice.

131. ENGLISH COMPOSITION (24 lectures with exercises). Instruction is provided with the Applied Science first year classes. (See page 219.) Mr. Latham.

30. PROFESSIONAL PRACTICE (24 lectures with exercises). Structure of specifications and general clauses; specifications for all trades; conditions of contract; agreements; building by-laws; estimates, reports, professional ethics. Mr. Turner.

175. ENGINEERING LAW (24 lectures).

Instruction is provided with the Applied Science fourth year classes (see page 223).

G.—Drawing.

31, 32, 33, and 34. ARCHITECTURAL DRAWING (84 periods of three and four hours).

The work in this course is in direct connection with the lectures in archæology.

31. Drawings of the Classic orders are prepared direct from the large models in the museum, and arch, vault, domes and roof diagrams are also prepared from documents. Mr. Ludlow.

32. Drawings of the Greek orders are prepared with special reference to their structural development and design. Restorations of classic buildings are prepared from the documents in the reference room.

33. Examples of mediæval architecture are studied; sketch plans and elevations of important works are set up and detail drawings are prepared from documents.

34. A special study is made during the first term of Italian Renaissance examples; the XVI century architecture of France and England and late examples of French or English fully developed Classic are studied. Mr. Traquair and Mr Ludlow.

36, 37, 38, 39. FREEHAND DRAWING (48 periods).

Drawing in pencil or charcoal from casts of architectural ornament, architectural fragments and parts of the figure. Mr. Ludlow and Mr. Hébert.

18. ARCHITECTURAL GEOMETRY (24 lectures and 24 periods).

Geometrical drawing and descriptive geometry, shades and shadows in their application to architectural forms and the intersections of geometrical solids. Mr. Ludlow.

19. PERSPECTIVE (24 periods with occasional explanatory lectures).

The elements of rectilinear perspective and the practical application of the precepts in making perspective drawings of the design problems in hand. Mr. Ludlow.

40 and 41. MODELLING (one period a week of two hours extended over the third and fourth years).

The student first studies form directly from nature, and later on conventionalizes the forms with which he has become familiar for decorative purposes. The Architectural museum affords many examples from different periods of the adaptation and abstraction of natural motifs in ornament. They are used to show the spirit in which to work out ornament, and are not copied directly. Models of designs on which the students are engaged are also prepared, and casting is taught. Mr. Hébert.

46. Summer Work.

During the vacation following the close of the first, second and third years, the students in Architecture are required to read and be prepared to pass an examination on a selected theoretical, æsthetical, or historical architectural work, and in addition to this, to spend at least five weeks in the office of some architect or contractor; the period of such employment to be certified by a letter from the employer. For the students who for any reason find it impracticable to do office work, the substitution of thirty-five reasonably large freehand sketches, rendered in any desired medium, will be considered an equivalent.

Department of Chemistry.

Professor:—R. F. Ruttan.
Professor of Physical Chemistry:—Douglas McIntosh.
Associate Professors:—Nevil Norton Evans. F. M. G. Johnson.
Assistant Professors:—V. J. Harding. V. K. Krieble.
Lecturer:—A. R. M. McLean.
Demonstrators:—L. A. Browne. T. West. H. S. Reid. M. J. Marshall. E. R. Edson.

Second Year Lectures.

51. General Chemistry.. An introductory course in descriptive and theoretical chemistry. The fundamental laws and theories are studied in conjunction with a detailed description of the preparation, properties and industrial applications

of the more important elements and their compounds. Three hours a week. Mr. Evans.

Text-book:—Macpherson and Henderson, General Chemistry.

54. INORGANIC QUALITATIVE ANALYSIS. A course explanatory of the work done in the laboratory (course 55). One lecture a week in the second term. Mr. Browne.

Text-book:—Stieglitz.

For reference:—Treadwell's Qualitative Analysis.

Second Year Laboratory.

52. GENERAL CHEMISTRY LABORATORY. In this course the student is taught the construction and use of ordinary apparatus and performs a series of experiments designed to cultivate the powers of observation and deduction. Many of these experiments involve accurate weighing. Considerable attention is also devoted to the subject of qualitative analysis. One period a week for all students of engineering. Mr. Evans, Mr. West, Mr. Edson and Mr. Marshall.

53. GENERAL CHEMISTRY LABORATORY. An extensive course illustrating the methods adopted in establishing the fundamental laws and in the preparation and purification of inorganic chemicals. Five periods a week in the first term for students of Chemistry and Metallurgy. Mr. Evans and Mr. West.

55. INORGANIC QUALITATIVE ANALYSIS LABORATORY. A complete course. Five periods a week in the second term, or (for Chemical and Metallurgical Engineers) its equivalent in the summer school. Messrs. Evans and Browne.

Text-book:—W. A. Noyes' Qualitative Chemical Analysis.

Third Year Lectures.

56. ORGANIC CHEMISTRY. A course in general elementary organic chemistry. Three lectures a week during the first term and two during the second term. Drs. Ruttan and Krieble.

Text-book:—Perkin and Kipping's *or* Remsen's Organic Chemistry.

58. PHYSICAL CHEMISTRY. An introductory course following the development of chemical theory, including vapour densities, molecular weights, the mass law and the phase rule. Two lectures a week during the second term. Dr. Johnson.

Text-book:—Theoretical and Physical Chemistry, Bigelow.

59. INORGANIC QUALITATIVE ANALYSIS. A course explanatory of the work done in the laboratory. One lecture a week in the second term for Mining Engineers only. Mr. Browne.

Text-book:—W. A. Noyes' Qualitative Chemical Analysis.

61. INORGANIC QUANTITATIVE ANALYSIS. A course on the general principles involved in quantitative analysis. One lecture a week during the first term of the third year. Dr. Johnson.

Text-book:—Cumming and Kay.

For reference:—Treadwell's Quantitative Analysis.

Third Year Laboratory.

57. ORGANIC CHEMISTRY. A course on the preparation, detection and analysis of the commoner organic compounds. Two periods a week in the second term. Drs. Ruttan and Krieble.

Text-book:—Gattermann's Organic Preparations.

60. INORGANIC QUALITATIVE ANALYSIS. A course adapted to the requirements of Mining Engineers. Two periods a week in the second term. Mr. Browne.

62. INORGANIC QUANTITATIVE ANALYSIS. An extensive course on gravimetric and volumetric methods, including gas analysis. Dr. Johnson.

Text-book:—Cumming and Kay, Quantitative Analysis.

Fourth Year.

73. BIOLOGICAL AND FOOD CHEMISTRY. A course on the constitution and analysis of proteins, carbohydrates, fats and allied substances. The course also includes the estimation of

food values, enzyme action and colloidal chemistry. A course of one lecture per week and three laboratory periods during the second term. Dr. Ruttan.

Text-book:—Leach, Food Inspection and Analysis.

65. Advanced Organic Chemistry. During the autumn term the course comprises the development of general theoretical organic chemistry, and a series of special lectures on the carbohydrates and the terpenes.

The winter term is devoted to the organic chemistry of nitrogen, including the proteins, purins, alkaloids, etc. Drs. Ruttan and Harding.

Text-book:—Perkin and Kipping's Organic Chemistry.

For reference:—Recent advances in Organic Chemistry, Stewart; Advanced Organic Chemistry, Cohen; Organic Chemistry of Nitrogen, Sidgewick.

66. Physical Chemistry. The lectures, which are a continuation of those given during the third year, include the kinetic theory, thermo-chemistry, the principles of thermodynamics as applied to chemical action, osmotic phenomena and their application in deducing the ionisation theory of solutions, a study of such physical properties of gases, liquids and solids as are known to depend on their chemical constitution, and electro-chemistry. Two lectures and two laboratory periods a week in the first term, two lectures and one laboratory period a week in the second term. Dr. McIntosh.

Text-book:—Findlay's Physico-chemical Measurements.

For reference:—Ramsay's Text-books of Physical Chemistry.

67. Inorganic Quantitative Analysis. The lectures deal with the special methods of analysis of iron and steel, alloys and water. One lecture a week in the second term. Dr. Johnson.

The laboratory work is a continuation of courses 61 and 62 and is adapted both in extent and in subject matter to the needs of individual students, various other courses being allowed as partial alternatives.

For reference: — Olsen's Quantitative Analysis; Blair, Chemical Analysis of Iron; Brearley and Ibbotson, Analysis of Steel Works Materials.

68. INDUSTRIAL CHEMISTRY. An extensive course on the leading chemical industries, both organic and inorganic. Two lectures a week. Dr. Ruttan and Mr. Evans, with several courses by special chemical engineers.

Text-book:—Thorp.

69. APPLIED ELECTRO-CHEMISTRY. The laws of electrolysis and of solutions are studied from the standpoint of the osmotic theory. Primary and secondary batteries, electro-plating, polarisation and the preparation and electro-chemical behaviour of the rarer elements used in incandescent lamps are discussed. The more important technical processes are studied and typical substances prepared in the laboratory. Two lectures and one laboratory period in the first term. Dr. McIntosh.

For reference:—Le Blanc, Elements of Electro-chemistry; Blount, Practical Electro-chemistry.

71. MINERAL ANALYSIS. A laboratory course specially designed for Mining Engineers. Four periods a week in the first term. Dr. Johnson and Mr. West.

Text-book:—Lord and Demorest.

For reference:—Olsen's Quantitative Analysis.

72. ADVANCED INORGANIC CHEMISTRY. A course of lectures on inorganic chemistry, discussing the elements and their compounds in accordance with the general principles of physical chemistry.

Two lectures a week throughout the session. Dr. Johnson.

74. HISTORY OF CHEMISTRY. A short course dealing with the development of chemistry from the historical standpoint. One lecture per week in the second term. Dr. Johnson.

Department of Civil Engineering and Applied Mechanics.

PROFESSORS:— { H. M. MACKAY. E. BROWN.

ASSISTANT PROFESSORS:— { C. BATHO. H. M. LAMB.

LECTURER:—R. DE L. FRENCH.

DEMONSTRATORS:— { ———. ———. ———.

Second Year.

81. MATERIALS OF CONSTRUCTION. Manufacture and properties of cast iron, wrought iron, crucible, bessemer and open hearth steel; principal alloys; considerations governing selection of materials; manufacture and properties of Portland and natural cements; limes; concrete; stone and brick masonry; principal kinds of timber used for engineering purposes; preservation of timber; discussion of standard specifications.

Required of all engineering students.

One hour per week. Prof. MacKay, Mr. Werner.

82. GRAPHICAL STATICS. Composition of forces; general methods involving the use of funicular and force polygons; determination of reactions, centres of gravity, bending moments and moments of resistance; stresses in cranes, braced towers, roof trusses and bridge trusses. Required of all engineering students. Three hours per week, second term. Mr. Lamb, ——— and ———.

83. MECHANICS. The course includes the general principles of statics, and of the dynamics of a particle. Motion of a particle under varying force is considered and a knowledge of both differential and integral calculus is essential. Simple harmonic motion is considered (taking the oscillation of springs and pendulums in illustration), and numerous applications of the principles dealt with are worked out.

Three lectures per week, second term.

Prof. Brown, Mr. Batho and ——.

Text-book:—Morley, Mechanics for Engineers.

Third Year.

86. MECHANICS. The work of the second year course in mechanics is extended, and the dynamical equations for the motion of a rigid body in two dimensions are deduced. Numerous examples are worked in detail, including problems on fly-wheels, kinetic energy of bodies having translation and rotation, oscillation of a rigid body about a fixed axis of suspension, impulsive forces, etc. The elementary principles of the gyroscope are also considered. Two lectures per week, first term. Prof. Brown and Mr. Batho.

Text-book:—Morley, Mechanics for Engineers.

87. STRENGTH OF MATERIALS. This course deals with the fundamental principles of the strength of materials. It includes the following:—Stress, strain, resilience, and the elastic properties of materials used in construction; bending moment and shearing force diagrams; strength, curvature, and deflection of beams; continuous beams; cantilever beams and the like; simple problems on rolling loads; reinforced concrete beams; the strength of shafting; spiral springs; bending combined with tension or compression; elementary consideration of compound stresses; distribution of shearing stress on various sections, etc.

Required of all engineering students. Two lectures per week during session. Prof. Brown, Mr. Batho and Mr. Lamb.

Text-book:—Morley, Strength of Materials.

88. STRENGTH OF MATERIALS LABORATORY. The work is arranged to illustrate the principles of the lecture course in strength of materials (87), and includes the following:—Tension tests of various materials in 100-ton and 30-ton testing machines; determination of stress-strain diagrams by automatic recorders and by extensometers and scales; deflection of beams, wood and metal; torsion of shafts; deflection and vibration of spiral springs, and torsional oscillations of wires; the moment of inertia of fly-wheels by oscillation and falling weight tests; determination of Young's modulus for various materials; complete tests of Portland cement; efficiency of chain blocks, experiments on tension and twisting of

wires; bending combined with torsion as in shafting; together with demonstrations on the large testing machines of tensile tests of various materials, the breaking of timber and reinforced concrete beams and small columns, the compressive strength of concrete, bricks, mortars, etc. Three hours per week, second term. Prof. Brown and assistant staff.

89. FOUNDATIONS AND MASONRY. Borings; bearing power of soils; piles and pile driving; concrete piles; footings; grillages; underpinning; foundations under water; coffer dam, open dredging, pneumatic and freezing processes; estimation of quantities from drawings; estimates of cost.

Required of students in course IV. Four hours per week, first term. Prof. MacKay, Mr. Lamb, Mr. ———.

Reference books:—Baker's Masonry Construction; Foundations of Bridges and Buildings, Jacoby and Davis.

90. STRUCTURAL DESIGN. Problems in the design of beams, plate girders, columns, roof trusses, knee bracing, etc.; working drawings; reinforced concrete; estimates of quantities; estimates of cost. Required of students in courses III, IV, VI, VII, IX and X. Four hours per week, second term. Mr. Lamb and Mr. Dodd.

Reference books:—Ketchum's Mill Building Construction; Morris, Structural Design; Cambria Steel.

91. MUNICIPAL ENGINEERING. (*a*) *Sewage of Cities and Towns.*—The various systems for the removal of sewage; special methods in use for its treatment and ultimate disposal; the proportioning and construction of main, branch and intercepting sewers; inverted syphons and submerged outlets; manholes, flush tanks, catch basins, storm water overflows, etc.; field and office work in connection with preliminary surveys, design, estimates of cost, construction, record plans and management; materials used in construction; (*b*) *Roads and Pavements*—methods of construction; cost; durability and desirability of the various kinds of pavements; grades and cross sections; methods of assessments of costs; methods of maintenance and cleaning. Required of Civil Engineering students. One hour per week. Mr. French.

Fourth Year.

94. THEORY OF STRUCTURES. The analysis of statically determinate framed structures under fixed and moving loads; distortion of framed structures; swing spans; braced arches and arched ribs with two hinges; hingeless arches in steel, concrete and reinforced concrete; frames with redundant members.

Required of civil engineering students in the fourth year. One lecture and one drafting room period per week, first term; two lectures and two drafting room periods per week, second term. Prof. MacKay, Mr. Lamb.

Reference books:—Merriman and Jacoby's Roofs and Bridges; Johnson Bryan and Turneaure's Modern Framed Structures; Marburg, Stresses in Structures; Heller, Stresses in Structures.

95. STRENGTH OF MATERIALS. The course includes the following:—The bending and deflection of beams loaded in any manner; beams continuous over several supports at the same or different levels; distribution of shear and deflection due to shear; principle of work applied to deflection of beams, trussed beams and some statically indeterminate problems; bending of curved bars, and of unsymmetrical sections such as single angles, etc.; elastic strains; relation between elastic constants; strength of thick shells; earthwork theories; suspension cables; the design of floor and column systems for reinforced concrete buildings (including a critical study of standard specifications); retaining walls, etc.

Required of civil engineering students in the fourth year. Two lectures per week during first term, and one per week during second term, with the equivalent of one half-laboratory period per week throughout the session at times appropriate to the progress of the course. Prof. Brown.

Text-books:—Strength of Materials, Morley; Reinforced Concrete, Taylor and Thompson.

96. BRIDGE DESIGN. The reasons governing the selection of a particular type of bridge; discussion of the loads to which the bridge will be subjected; calculation of the stress in the

several members; determination of the sectional areas and forms of the members; design of the connections; preparation of complete drawings.

Required of students in Civil Engineering. Eight hours per week. Prof. MacKay, Mr. ———.

Reference books:—Merriman and Jacoby's Roofs and Bridges; Johnson Bryan and Turneaure's Modern Framed Structures; Ketchum's Highway Bridges; Thomson's Typical Steel Railway Bridges.

97. Hydraulics. The fundamental principles of hydraulics are considered and applied to problems on the discharge of orifices, notches, weirs, pipes and open channels under varying conditions; the theory of impact of jets and its application to turbines is also dealt with. Required of Civil and Mechanical students of the fourth year; alternative course for Electrical and Mining students of the fourth year.

Two hours per week, first term. Prof. Brown.

Text-book:—Hydraulics and its Application, Gibson.

98. Hydraulic Laboratory. The course is illustrative of the principles considered in course 97, and is taken concurrently. The work includes the following experiments:—Measurement of discharge from orifices, notches and pipes, both straight and bent, to determine hydraulic coefficients; pressure of jets impinging on vanes; tests of Venturi meter, hydraulic ram, Pelton wheel, Girard impulse turbine, Brotherhood reciprocating motor, etc. Three hours per week, first term. Prof. Brown and assistant staff.

99. Hydraulic Machines. The course includes the application of the principles of hydraulics to the determination of formulæ for the design of turbines and centrifugal pumps. Examples are worked showing the methods of finding the leading dimensions of different types of such machines, and representative machines, methods of regulation, etc., are considered in detail. The transmission of power by hydraulic pressure is also considered, and the functions of the accumulator are dealt with along with the influence of inertia forces in the operation of such machines as reciprocating motors,

pumps, riveters, etc. Two hours per week, second term, Prof. Brown.

Text-book:—Hydraulics and its Applications, Gibson.

101. HYDRAULICS AND LABORATORY. A short course embodying the hydraulic principles outlined under courses 97 and 98 will be given in the first term. There will be one lecture per week, and four or five laboratory periods at hours to be arranged. Required of Metallurgical and Chemical Engineering students of the fourth year; alternative course for Mining students of the fourth year.

Text-book:—Hoskins, Text-book on Hydraulics.

100. MUNICIPAL ENGINEERING. *Water Supply.* The quantity and quality of water; rainfall and evaporation; storage as related to the supplying capacity of watersheds; combined and separate fire and domestic systems with reference to their requirements as factors in the selection of sources of supply; works for the collection, storage and carriage of water to the point of distribution; natural and artificial purification; the distribution system with location of mains, hydrants, valves, blow-offs, etc.; field and office work in connection with design, estimates of cost, construction, record plans and management.

Required of Civil Engineering students.

Two hours per week, second term. Mr. French.

105. ADVANCED COURSES. Provision will be made if a sufficient number of properly prepared students present themselves for more advanced courses of lectures on theory of structures.

Department of Descriptive Geometry and Freehand Drawing.

PROFESSOR:—C. H. McLEOD.
ASSOCIATE PROFESSOR:—H. F. ARMSTRONG.
LECTURER:—A. J. KELLY.
DEMONSTRATORS:— { JAMES WEIR. F. J. CRONK.

This course deals with the methods of representing objects on one plane so that their true dimensions may be accurately scaled. It discusses the methods employed in the graphical solution of the various problems arising in engineering design, and deals generally with the principles underlying all constructive drawing. The methods taught are illustrated by applications to practical problems. It is the aim of the work to develop the imagination in respect to the power of mentally picturing unseen objects, and, incidentally, precision in the use of the drawing instruments is attained.

First Year.

341. DESCRIPTIVE GEOMETRY. Geometrical Drawing. Problems on straight line and plane; projections of plane and solid figures; curved surfaces and tangent planes; intersections of surfaces; axometric projections; shades and shadows. Mr. Armstrong.

Text-books:—Geometrical Drawing, by C. H. McLeod; McLeod's Elementary Descriptive Geometry.

342. FREEHAND DRAWING. The object of this course is to train the hand and eye so that students may readily make sketches from parts of machinery, etc., either as note book sketches, diagrams, perspective drawings in light and shade, or as preparatory dimensioned sketches from which to make scale drawings. Mr. Armstrong.

343. LETTERING. Plain block alphabets, round writing, and titles, such as are chiefly in use in draughting offices, will be dealt with. Mr. Armstrong.

Third Year.

350. PERSPECTIVE DRAWING. Mathematical perspective and the perspective of shadows, etc.; photographic surveying. First term. Mr. Kelly.

351. MAP PROJECTIONS. Graphical determination of spherical triangles; spherical projections and the construction of maps. Second term. Mr. Weir.

Department of Electrical Engineering.

PROFESSOR:—L. A. HERDT.

ASSISTANT PROFESSORS:— C. V. CHRISTIE. A. GRAY.

LECTURER:—E. GODFREY BURR.

DEMONSTRATORS:— R. H. MATHER. ———————

Third Year.

113. ELECTRICAL ENGINEERING. The theoretical consideration of current flow in circuits; the laws of electro-magnetism and of the magnetic circuit; the theory and operating characteristics of direct current machinery; the principles of alternating current machinery. Required of all students in Electrical Engineering.

Two hours per week. Mr. Christie.

Text-book:—Christie's Electrical Engineering.

114. ELECTRICAL ENGINEERING LABORATORY. Lectures on: Preparation of reports; construction, handling and protection of electrical apparatus; use of instruments and precision of measurement; predetermination of the characteristics of electrical machinery; special and shop testing.

Tests are made in the laboratory on:—Current flow in circuits; metering and controlling devices, generators, motors, boosters, balancers and motor generator sets; arc and incandescent lamps; reflectors. These tests are intended to illustrate the principles of action and the limits of the proper use of the apparatus. Required of all students in Electrical Engineering. Lectures, one hour per week. Mr. Gray.

Laboratory, six hours per week.

Students are furnished with special laboratory notes.

111. ELEMENTS OF ELECTRICAL ENGINEERING, for third year students in Mechanical Engineering and fourth year students in Civil and Mining Engineering and Railway Transportation.

A general course in electrical engineering, treating of the laws of electro-magnetism; continuous and alternating current flow in various circuits; characteristics of direct and alternating current machinery; the fundamental principles of electric lighting, power distribution and electric traction.

Two hours per week. Mr. Gray. First and second terms.

Text-book:—Gray's Electrical Engineering.

112. ELECTRICAL ENGINEERING LABORATORY, for third year students in Mechanical Engineering and fourth year students in Civil and Mining Engineering and Railway Transportation.

Includes tests of direct current metering and controlling devices, dynamos, motors, boosters, motor generators and constant current machines; experiments of variable current flow in circuits; tests of alternators, synchronous motors and converters, induction motors and transformers, etc.

Three hours per week. First and second terms.

Fourth Year.

117. ELECTRICAL ENGINEERING. The treatment of alternating current circuits by vector diagrams and vector equations; the theory and operating characteristics of alternating current machinery. Required of all students in Electrical Engineering. Must be preceded by course 113.

Three hours per week. Mr. Christie.

Text-book:—Christie's Electrical Engineering.

118. ELECTRICAL ENGINEERING LABORATORY. Tests are made in the laboratory on alternators, synchronous motors and converters, compensators, induction motors, transformers, frequency and phase changing apparatus, potential regulators, rectifiers, etc. Required of all students in Electrical Engineering. Must be preceded by course 113, and taken in conjunction with course 117.

Laboratory, nine hours per week.

Students are furnished with special laboratory notes.

120. Electric Lighting and Power Distribution. The design and operation of power plants and substations. Transmission and distribution systems are taken up under the following heads:—Selection of generators, transformers, switches and auxiliary apparatus with a study of their characteristics and limitations; wiring diagrams and switchboard design; line design and construction, selection of towers, insulators and conductors, calculation of sags and spans; high voltage and transient phenomena, the protection of overhead lines, cable systems and station apparatus; industrial applications of electrical apparatus; financial considerations. Electric lighting and illumination is taken up under the following heads: Light and its physiological effects; characteristics of lamps and reflectors; interior and street lighting; lighting systems. This subject is required of all students in Electrical Engineering. Two hours per week, first term. Dr. Herdt.

Three hours per week in drafting room, first term.

Text-book:—Standard Handbook for Electrical Engineers.

121. Electric Traction. Urban, inter-urban and main line electrification is taken up under the following heads:—Choice of system and apparatus; calculation of motor rating and car equipment; overhead and track construction; methods of control, braking and regeneration; storage batteries and boosters; financial considerations.

This subject is required of all students in Electrical Engineering in their fourth year. Two hours per week, second term. Dr. Herdt.

Three hours per week in the drafting room, second term.

Text-book:—Standard Handbook for Electrical Engineers.

122. Electrical Design. The electrical design of direct and alternating current machinery. Special attention is paid to the limitations of the different types of machines and to the preparation of specifications. Required of all students in Electrical Engineering. Lectures, two hours per week. Mr. Gray. Problem work, four hours per week.

Text-book:—Gray's Electrical Machine Design.

123. APPLICATIONS OF ELECTRICITY.

Lectures on industrial measuring instruments, their construction, use and precision; control of machines; auxiliary apparatus; illumination and photometry; wireless telegraphy. Must be preceded by course 113 and taken in conjunction with course 117.

First and second terms. Lectures, two hours per week. Laboratory, one evening a week (optional). The staff.

English.

LECTURER:—G. W. LATHAM.

131. ENGLISH COMPOSITION. In view of the importance of accuracy of expression in the case of those engaged in scientific or professional work, a course on English composition is prescribed for all undergraduates of the first year. Students who give evidence of having already reached the required standard of proficiency, by passing a special exemption examination, may be excused from attendance on this course. This special examination will be held in the Molson Hall on Saturday, October 2nd, at 11 o'clock.

Students who are required to take this course will be assigned to a section which will meet semi-weekly for practice and instruction in composition.

Satisfactory results in class and essay work must be obtained before entry into the second year. All undergraduates of the first year, whether exempt or not from attendance on the course, must pass the final examination.

In connection with this course the following text-books may be used:—"Carpenter's Rhetoric and English Composition" (Macmillan); "Woolley's Handbook of Composition" (Heath).

132. ENGLISH SUMMER READING. (See page 193.)

135. ENGLISH. (Department of Railways. See page 251.)

138. ENGLISH. (Department of Railways. See page 253.)

Department of Geology and Mineralogy.

PROFESSORS:— { FRANK D. ADAMS. J. AUSTEN BANCROFT.

ASSISTANT PROFESSOR:—R. P. D. GRAHAM.

LECTURER:—JOHN STANSFIELD.

Third Year.

141. GENERAL GEOLOGY. The lectures will embrace a general survey of the whole field of geology, and will be introduced by a short course on mineralogy. Especial attention will be devoted to dynamical geology and to historical geology, including a description of the fauna and flora of the earth during the successive periods of its past history, as well as to the economic aspects of the subject.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern slides. In addition to the lectures there will be a demonstration each week.

Dr. Adams.

Text-book:—Scott, An Introduction to Geology.

142. MINERALOGY. The lectures and demonstrations, illustrated by specimens and models, deal mainly with the description and means of identification of species, special attention being paid to the ores and economic minerals and to those which are important as rock constituents. The earlier lectures are devoted to a brief discussion of the geometrical and physical properties of minerals; their chemical composition; calculation of formulæ, etc.; and the principles of classification.

Mr. Graham.

143. DETERMINATIVE MINERALOGY. Laboratory practice in blow-pipe analysis and its application to the determination of mineral species. Mr. Graham and Mr. Stansfield.

Fourth Year.

146. PETROGRAPHY. The modern methods of study employed in petrography are first described, and the classification and description of rocks is then taken up.

In addition to the lectures, one afternoon a week during the second term will be devoted to practical work in the petrographical laboratory.

Dr. Bancroft, Mr. Graham and Mr. Stansfield.

147. ADVANCED PETROGRAPHY. This is a more advanced course than 146. In addition to the lectures, an afternoon throughout the year will be devoted to practical work in the petrographical laboratory. Dr. Bancroft and Mr. Stansfield.

Text-book:—Harker's Petrology for Students.

The petrographical laboratory is open to fourth year Mining students.

148. ORE DEPOSITS AND ECONOMIC GEOLOGY. The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed. The more important non-metallic materials, *e.g.*, fuels, clays, building stones, etc., will be similarly treated, as well as questions of water supply, artesian wells, etc. The structure of the earth's crust, more especially with reference to folding, faulting and igneous intrusion in their bearing upon mining, will then be considered, and the course will close with a discussion of the methods employed in carrying out geological and magnetic surveys and in the construction and interpretation of geological maps and sections.

Dr. Bancroft will lecture on economic geology in the first term, and Dr. Adams on ore deposits in the second term.

Text-books:—Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Lindgren, Mineral Deposits; Beck and Weed, The Origin and Nature of Ore Deposits.

Books of reference:—The Reports of the Geological Survey of Canada, and the Publications of the U.S. Geological Survey.

149. GEOLOGY OF CANADA. A general description of the geology and mineral resources of the Dominion.
Dr. Bancroft.

150. PHYSICAL GEOGRAPHY AND CLIMATOLOGY. Geographical subdivisions of Canada; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products.

This is a special course provided for the fourth year students in the Railway Transportation course. It will be illustrated by maps, models and lantern slides. Dr. Bancroft.

151. CRYSTALLOGRAPHY. A short course of lectures for students in chemistry, with laboratory practice in the measurement and drawing of crystals; calculation of axial ratios, etc.; use of the polarising microscope, axial angle apparatus, etc. Mr. Graham.

152. HISTORICAL GEOLOGY. This is a continuation of course 141, and will consist of lectures, colloquia and museum work extending throughout the session. Dr. Bancroft and Mr. Stansfield.

153. FIELD WORK. The students in mining will receive a course of instruction in geological mapping and field work—extending over one week—in connection with the summer school of mining. Dr. Bancroft, Mr. Graham and Mr. Stansfield.

154. FIELD WORK. During the ten days immediately preceding the opening of the fall term, a special course in the field methods employed in a geological survey

will be given for those students who elect the geological option in the fourth year of the Mining course. Dr. Bancroft, Mr. Graham and Mr. Stansfield.

Note.—Students of the Mining and Chemistry courses take all the mineralogy of the third year. Chemistry students, in addition to the geology of the third year, may take the mineralogy of the fourth year.

Law and Economics.

PROFESSOR OF LAW:—R. W. LEE.
PROFESSOR OF ECONOMICS:—S. B. LEACOCK.
ASSISTANT PROFESSOR OF ECONOMICS:—J. C. HEMMEON.
LECTURER IN RAILWAY ECONOMICS:—J. J. CREELMAN (on leave of absence.)
LECTURER IN ENGINEERING ECONOMICS:—FREDERICK B. BROWN.

171. ENGINEERING ECONOMICS. This course is intended to familiarize the engineering student with the business aspect of his profession. With this in view, lectures will be given on the subjects of barter and sale; money and credit; stocks and bonds; partnerships and corporations; the formation, organization and financing of companies; analysis of balance sheet; operating and fixed charges; estimates; specifications and contracts. Mr. Brown.

172. ELEMENTS OF POLITICAL ECONOMY. (Department of Railways. See p. 251.) Dr. Leacock.

175. LAW FOR ENGINEERS. This course is intended to present such an outline of the law as will be useful to engineers and business men. Among the main topics may be mentioned the general law of contracts and damages; the law of the architect and builder; the statutes affecting labour; commercial paper; sale; lease; agency and partnership; joint stock companies; insurance; carriers by land and sea. Prof. Lee.

176. RAILWAY LAW. (Department of Railways. See p. 254.)

177. RAILWAY ECONOMICS. (Department of Railways. See p. 252.) Dr. Hemmeon and Mr. Creelman.

Department of Mathematics.

PROFESSOR:—D. A. MURRAY.

ASSISTANT PROFESSORS:— { T. RIDLER DAVIES. C. T. SULLIVAN.

LECTURERS:— { C. BATHO. I. A. MILLER.

First Year.

191. GEOMETRY. Exercises in plane geometry, elements of solid geometry and of geometrical conic sections. First term. Messrs. Davies, Miller, Sullivan.

Text-book:—Hall and Stevens' School Geometry, Parts I-VI (Macmillan).

192. ALGEBRA. Miscellaneous theorems and exercises, exponential and other series, properties and solution of higher equations, complex numbers, graphical algebra with an introduction to analytic geometry, indeterminate forms, limits, derivatives, slopes of curves. First and second terms. Prof. Murray, Messrs. Miller, Sullivan.

Text-books:—Rietz and Crathorne's College Algebra (Holt & Co.); Tanner and Allen's Analytic Geometry (American Book Co.).

193. TRIGONOMETRY. Plane and spherical. Second term Messrs. Davies, Miller, Sullivan.

Text-book:—Murray's Plane and Spherical Trigonometry. with tables (Longmans).

194. MECHANICS.. An elementary course in dynamics statics, and hydrostatics. First and second terms. Messrs. Batho, Miller, Sullivan.

Text-book:—Loney's Mechanics and Hydrostatics for Beginners (Cambridge University Press).

Second Year.

197. ANALYTIC GEOMETRY. The point, straight line, circle. parabola, ellipse and hyperbola, elements of geometry of three dimensions. First year (latter part of second term), and second year (first term). The second year work begins with the circle. Prof. Murray, Messrs. Miller, Sullivan.

Text-book: — Tanner and Allen's Analytic Geometry (American Book Co.).

198. CALCULUS. Differentiation of functions of one or more variables, successive differentiation, tangents, etc., curvature, maxima and minima, integration, with applications to areas, volumes, moments of inertia, etc. First and second terms. Prof. Murray, Messrs. Miller, Sullivan.

Text-book:—Murray's Differential and Integral Calculus (Longmans).

Third Year.

201. CALCULUS. Elementary differential equations. Prescribed for Electrical Engineering students of the third year; optional for all others. First and second terms. Prof. Murray.

For courses in second and third year mechanics (Nos. 83 and 86), see CIVIL ENGINEERING AND APPLIED MECHANICS, pages 209 and 210.

Department of Mechanical Engineering.

ASSOCIATE PROFESSORS:— C. M. McKERGOW. A. R. ROBERTS.

LECTURERS:— R. J. DURLEY. ———

DEMONSTRATORS:— L. S. EATON. ——— ——— ———

SHOP INSTRUCTORS:— G. WOOLEY. J. STEWART. H. LANE. A. W. MILLER.

First Year.

211. MECHANICAL DRAWING AND DESIGNING. Elementary principles of mechanical drawing and draftsmanship; preparation of working drawings and tracings of simple machine details.

In connection with this work a brief course of lectures is given upon drafting room methods and standards, and the

elementary considerations in the design and construction of, and selection of materials for, simple machine parts.

Required of all Engineering students. Three hours per week. Mr. Roberts and assistants.

SHOPWORK. The course in shopwork is intended to afford some preparation for that study of workshop practice on a commercial scale which every engineer has to carry out for himself. With this end in view, the student works in the various shops of the department, and completes in each a series of practical exercises. He thus obtains some knowledge of the nature and properties of the various materials he employs; he receives systematic instruction in the use and care of the more important hand and machine tools; and he acquires some manual skill. The instruction thus obtained must, however, be continued and supplemented. *For this purpose students are expected to spend the greater portion of each long vacation in gaining practical experience in engineering workshops outside the University.* Students are required to read and make notes of selected portions of certain text-books and articles in technical journals, illustrative of the work done in each shop. The practical work is supplemented by a brief course of lectures dealing with shop processes and tools. The subject dealt with in this way gives the student a clearer idea of the care and use of the various instruments and tools, and of the performance of the machines. In connection with his shopwork, each student is required to keep a record of his work. These records or notes are made on standard forms. These are handed in to the Shop Instructor at the close of each period of work, and, together with diligence and the results of a brief, written examination, form the basis on which credit for shopwork is assigned.

Required of all Engineering students. Six hours per week.

212. CARPENTRY AND WOOD-TURNING. Sharpening and care of wood-working tools; sawing, planing and paring to size; preparation of flat surfaces, parallel strips, and rectangular blocks; construction of the principal joints employed in carpentry and joiner work, such as end and middle lap joints, end and middle mortise and tenon joints, mitres, dado and

sash joints; dovetailing; scarfing; joints used in roof and girder work; wood-turning; use of wood-turning tools. Mr. Wooley.

213. SMITH-WORK. The forge and its tools; use and care of smiths' tools; management of fire; use of anvil and swage-block; drawing taper, square and parallel work; bending, upsetting, twisting, punching, and cutting; welding and scarfing. Mr. Stewart.

214. FOUNDRY-WORK. Moulders' tools and materials used in foundry work; the cupola; the brass furnace; preparation of moulding sand; boxes and flasks; core-making; use of core-irons; bench moulding; blackening, coring and finishing moulds; vents, gates and risers; floor moulding; open sand work; melting and pouring metal; mixtures for iron and brass casting. Mr. Lane.

215. SHOP METHODS. Brief study of woods and of hand and machine tools used in wood-working. Manufacture and working of iron and steel; forge and forge tools; welding; stock calculations; steam hammer work; drop forgings; cupola practice; moulders tools; elementary moulding and core-making.

One half-hour per week. Mr. Chambers.

Second Year.

218. MECHANICS OF MACHINES. (*a*) *Kinematics of Machines.*—Constrained motion; kinematic pairing; velocity and acceleration in mechanisms; centrodes; analysis and classification of simple mechanisms, including the quadric crank chain, the slider crank chain and various wheel trains; design of involute and of cycloidal wheel-teeth; (*b*) *Dynamics of Machines.*—Work and power; the power and turning effort of prime movers; inertia and kinetic energy of revolving and reciprocating parts of machines. Required of all Engineering students. Three hours per week. Mr. McKergow.

Text-book:—Durley's Kinematics of Machines (Wiley).

219. MECHANICAL DRAWING. Drafting and tracing of more difficult exercises, and the making of assembly and detail

drawings of machine parts. Lectures are given from time to time during the course dealing with drafting room methods, explanation of designs, and discussion of the reasons for selection of materials.

Required of all Engineering students. Three hours per week. Mr. Roberts and assistants.

220. MACHINE-SHOP WORK. Exercises in chipping; preparation of flat surfaces; filing to straight edge and surface plate, scraping, screwing and tapping; use of scribing block and surface gauge; marking off work for lathes and other machines; turning and boring cylindrical work to gauge; surfacing; screw-cutting and preparation of screw-cutting tools; machining flat and curved surfaces on the planing and shaping machines; drilling and boring; cutting angles and speeds; dressing and grinding tools.

Required of all Engineering students. Three hours per week. Mr. Miller.

221. SHOP METHODS. Tools; tool steels; forging, hardening and tempering; case hardening; grinding and abrasives; brazing and soldering; modern welding processes; fits and fitting; interchangeable processes of manufacture; lathe construction, adjustments and practice.

Required of all Engineering students.

One hour per week. Mr. Chambers.

Text-book:—Elements of Machine Work, R. H. Smith.

Third Year.

224. MECHANICS OF MACHINES. Mechanisms involving chamber crank trains and chamber wheel trains; helical, skew, and worm gearing; relative motion and displacement; the mechanism of the simple slide valve and of expansion valves; solution of valve setting problems; the function and dynamics of engine fly-wheels and governors; elements of engine balancing; friction and lubrication.

Required of students in Mechanical and Electrical Engineering. Two hours per week. Mr. Eaton.

Text-books:—Durley's Kinematics of Machines (Wiley); Ewing's Steam Engine (Camb. Univ. Press).

225. MACHINE DESIGN. Principles of the strength of materials as applied to the design of the parts of machines; fastenings used in machine construction, bolts, screws, keys, cotters, rivets, and rivetted joints; journals and bearings; shafts and couplings.

Required of students in Mechanical and Electrical Engineering. Two hours per week. Mr. Eaton.

Text-book:—Unwin's Machine Design, Part I (Longmans).

Book of reference:—Spooner's Machine Design (Longmans).

226. MECHANICAL ENGINEERING. General course in Mechanical Engineering of Power Plants and Prime Movers.

Fuel and combustion, steam boilers and steam production; corrosion and defects of boilers; boiler plants and accessories, principles of selection and arrangement; the steam engine; estimation of power developed, economy of steam machinery; the indicator; condensers, pumps and accessories; steam turbines; principles of design in steam plants; gas engines and gas producer plants, their selection, economy and arrangement; general conditions governing location and design of power installations.

Required of all Engineering students, except those in Mechanical Engineering. Two hours per week. Mr. Durley.

Text-books:—Meyer, Steam Power Plants (McGraw); Duncan, Steam and other Engines (Macmillan).

227. MECHANICAL ENGINEERING. Fuel and combustion; steam boilers and steam production; boiler installation and operation; the indicator; the steam engine, steam distribution and economy; steam turbines; condensers and auxiliary machinery in steam plants; gas engines and gas producer plants; compressed air and refrigerating machinery.

Required of all students in Mechanical Engineering. Three hours per week. Mr. McKergow.

Reference books:—Ripper, Heat Engines (Longmans); Nelson, Steam Boilers.

228. MECHANICAL ENGINEERING LABORATORY. Testing and calibration of indicators, brakes and other measuring instruments; investigation of the operation of brakes, dynamometers, and governors; tests to determine the efficiency of belt and other transmission gearing, the properties of lubricants, the economy and performance of a steam engine and boiler, of a gas engine, of an air-compressor, and of a pump.

Required of all engineering students, except those taking the Electrical Engineering course. Three hours per week. Mr. McKergow and assistants.

Reference book:—Carpenter, Experimental Engineering.

223. MECHANICAL ENGINEERING LABORATORY.

First term, course same as 228; second term, experimental work on the relative value of throttling and expansion governors; effect on the economy of steam engine of changing from simple to compound, triple, or quadruple expansion; the testing of steam boilers, producer gas engines, air compressors, steam turbines, and a complete steam power plant test.

Required of students in Electrical Engineering. Six hours per week in first term and three per week in second term. Mr. McKergow and assistants.

Reference book:—Carpenter, Experimental Engineering.

229. THERMODYNAMICS. Fundamental laws and equations of thermodynamics; their application to gases and to vapours, saturated and superheated; efficiency of ideal heat engines; properties of steam, and elementary theory of the steam engine; elementary theory of gas and hot air engines.

Required of third year students in Mechanical and fourth year students in Electrical Engineering. Two hours per week. Mr. Roberts.

Text-books:—Ewing, The Steam Engine and Other Heat Engines (Camb. Univ. Press); Marks and Davis, Steam Tables.

Reference book:—Ennis, Thermodynamics applied to Engineering.

230. MECHANICAL DRAWING. Exercises in making sketches of machine parts and in preparing working drawings and

tracings from them. Required of Electrical and Mechanical Engineering students. Ten hours per week during summer term, between the second and third years. Mr. Roberts and assistants.

231. MECHANICAL DRAWING. This course is supplementary to the course in machine design and consists of exercises in design and draughting of fastenings, machine parts and simple machines. Required of Mechanical Engineering students. Six hours per week for first term and three hours per week for second term.

232. MECHANICAL DRAWING. A course similar to 231, but less extended. Required of Electrical Engineering students. Three hours per week.

233. SMITH WORK. Tool forging and tempering, using carbon and high-speed steels; making lathe and planer tools; taps, dies, drills, and tools for the forge; special welding. Eleven hours per week for half the summer term, prior to work in third year session. Required of Electrical and Mechanical Engineering students. Mr. Stewart.

234. FOUNDRY WORK. Moulds requiring a higher degree of skill and judgment than elementary course; special methods of strengthening the mould; coating for smooth surfaces on castings; methods of avoiding defects; cupola charging and operating; core mixtures and core making; coring moulds. For same period as 233. Required of Electrical and Mechanical Engineering students. Mr. Lane.

235. PATTERN MAKING. Use of pattern-makers' tools; elements of pattern-making; allowances to be made for draught and for contraction in moulding and casting; use of contraction rule; preparation of prints and plain core-boxes; exercises in paring and turning; construction of patterns and core-boxes for pipes, flanges, elbows, tees and valves; more difficult exercises in pattern-making, including built-up patterns and face-plate work; gear and wheel patterns.

Required of students in Mechanical Engineering. Three hours per week for half the session. Mr. Wooley.

236. MACHINE SHOP. Lathe work; marking off; centering; turning and boring; radial facing; filing; grinding and polishing; internal and external screw cutting; change gear calculations; taper turning and bench work.

Required of students in Mechanical Engineering. Three hours per week for half the session. Mr. Miller.

237. SHOP PROCESSES AND MANAGEMENT. Materials used and methods adopted in the manufacture of patterns; marking-off, machining, fitting and erecting machines; machine drives; boiler-making and plate work; factors of economic production of machine tools; selection of economic cutting conditions; requirements for accurate and interchangeable work; economic movement of material in shop; co-ordination of various factory departments; methods of experimental investigation of shop processes; motion study; science of management.

Required of students in Mechanical Engineering. One hour per week.

Fourth Year.

240. MECHANICS OF MACHINES. (a) Gyrostatic action in machines; further treatment of engine governors; knocking and shocks in reciprocating machinery; vibration; valve gears. (b) The principles underlying the stability and weight-supporting power of curved and plane surfaces driven through the air at high velocities, together with the power required to maintain these velocities are studied, and the designs of such machines used for purposes of illustration.

Required of students in Mechanical Engineering. Two hours per week. Mr. McKergow.

Reference books:—Dalby's Balancing of Engines; Spangler's Valve Gears; Lanchester's Aerodynamics.

241. DESIGNING. The complete design of an engine, a pump, or a machine tool, is worked out, and the requisite working drawings and tracings are prepared.

Required of students in Mechanical Engineering. Three hours per week. Mr. Roberts.

242. MACHINE DESIGN. First term, design of power transmission gearing, including belts, ropes, friction, chain and toothed gearing, fits and fitting; second term, engine details, including cylinders, piston rods, connecting rods, shafts, fly-wheels and machine frames.

Required of Mechanical Engineering students. Two hours per week. Mr. Roberts.

Text-book:—Unwin's Machine Design, Parts I and II (Longmans).

Reference book:—Spooner's Machine Design (Longmans).

243. MACHINE DESIGN. Course same as 242, first term. Two hours per week during first term. Required of Electrical Engineering students. Mr. Roberts.

244. POWER PLANT DESIGN. The arrangement, design and operation of power plants worked by steam or gas engines; effects of requirements for lighting, heating and power distribution. One lecture hour and one drafting room period per week per session. Required of students in Mechanical Engineering. Mr. McKergow.

Text-book:—Gebhardt, Steam Power Plant Engineering.

A student must select one of the following courses.

245. LOCOMOTIVE ENGINEERING. Train resistance, tractive force in locomotives; locomotive performance and rating; brakes; fuel and water in locomotive work. One hour per week. Prof. Keay.

Text-book:—Henderson, Locomotive Operation.

246. MARINE ENGINEERING. Ship resistance and propulsion; efficiency and performance of marine machinery and propellers; arrangement and operation of main and auxiliary machinery for marine work. One hour per week. Mr. Durley.

Reference books:—Taylor, Resistance of Ships; Sennett and Oram, The Marine Steam Engine.

247. HEATING AND VENTILATION OF BUILDINGS. Loss of heat from buildings; radiation surfaces; design and operation of heating systems; principles of ventilation; fans and

blowers; design and duct systems; temperature and humidity control. One hour per week. Mr. McKergow.

Text-book:—Carpenter, Heating and Ventilating Buildings (Wiley).

249. MECHANICAL ENGINEERING LABORATORY. Experimental investigation of:—engine balancing and vibration; action of governors; performance of fans and blowers; efficiency of hoisting machinery; performance of steam boilers; steam engines, steam turbines, refrigeration machines, condensers, gas engines and producers; efficiency of air compressing and pumping machinery; tests of a complete steam power plant, gas power plant, and a heating and ventilating system. Ten hours per week.

Required of students in Mechanical Engineering.

Reference book:—Carpenter, Experimental Engineering.

257. EXPERIMENTAL ENGINEERING. Theory of errors; methods of testing and tabulating results of tests on steam boilers, steam engines, gas producers, internal combustion engines, air compressors, refrigerating machinery, etc. Required of students in Mechanical Engineering. One hour per week.

Text-book:—Carpenter, Experimental Engineering.

251. THERMODYNAMICS. Theory of reversed heat engines and refrigerating machines; entropy and entropy-temperature diagrams; advanced theory of internal combustion engines; a thermodynamic study of the steam engine, including the behaviour of steam in the cylinder; economy of steam engines; influence of size, speed, and rate of expansion; compound expansion; the steam jacket; the testing of steam engines; flow of gases and vapours; theory of steam turbines. The whole course is carried out as far as possible in connection with the experimental work of the Mechanical Engineering Laboratories. Required of students in Mechanical Engineering. Two hours per week. Mr. Roberts.

Text-books:—Ewing's Steam Engine (Cambridge Univ. Press); Moyer, Steam Turbines (Wiley); Marks and Davis, Steam Tables and Diagrams (Longmans).

Books of reference:—Stodola, The Steam Turbine (trans. Lowenstein), (Van Nostrand); Clerk, The Gas, Petrol and Oil Engine, Part I.

252. MACHINE SHOP. Experimental work and studies for the minimum time required for production, involving a consideration of the best available machine tool speeds, necessary power of belting, most efficient tool angles, quality of metal and the kind of tool steel used. The course includes work in connection with the lathe, the planer, slotter, shaper, miller and turret lathe; and instruction in gear cutting and cutter grinding. Required of students in Mechanical Engineering. Three hours per week. Mr. Miller.

253. MANUFACTURING PLANT DESIGN. Methods adopted in designing a plant for manufacture of a specified product; lay-out of shops; construction of buildings; equipment, requirements for power, heat and light; fire protection; general system of operation and cost determination as affecting design of plant. (Optional with Course 99 [Hydraulic Machines] for students in Mechanical Engineering.) Two lecture hours and one drafting room period per week, second term. Mr Roberts.

Text-book:—Day, Industrial Plants (Engineering Magazine).

254. WORKS ORGANIZATION AND ACCOUNTING. Analysis of costs of production and establishment charges; elements of factory accounting, factory record systems; depreciation; organization of staff; functions of departments; purchasing systems; methods of remunerating labour; shop organization and equipment as affecting efficiency of production. Work done as far as possible in connection with course 253. Required of students in Mechanical Engineering. One hour per week.

Reference book: — Carpenter, Profit-making Management (Engineering Magazine.)

Department of Metallurgical Engineering and Metallurgy.

PROFESSOR:—ALFRED STANSFIELD.
LECTURER:—S. W. WERNER.

Third Year.

261. GENERAL ELEMENTARY METALLURGY. An introductory course in the metallurgy of copper, lead, iron and steel.

The following metallurgical exercises will be carried out, as far as time will permit:—(*a*) Roasting a sulphide or arsenical ore on a small scale and also in the large roasting furnace; (*b*) formation and properties of copper or lead mattes and slags; (*c*) smelting a copper or lead ore in the water-jacketed blast-furnace; (*d*) melting and casting certain metals and alloys; (*e*) the use of the electric furnace; (*f*) leaching a copper or silver ore; (*g*) elementary exercises in some of the following: pyrometry, calorimetry, tests of refractory materials, microscopic examination of metals, heat-treatment of iron or steel.

Two lectures a week during the first term and one half-laboratory period in the second term. Prof. Stansfield and Mr. Werner.

262. METALLURGICAL LABORATORY. The course covers in a more thorough manner the laboratory work mentioned in 261, particular attention being devoted to instruction in pyrometry, calorimetry, the microscopic examination of metals and the heat treatment of iron and steel. Two periods in the second term for Metallurgical students.

263. FIRE-ASSAYING, PART I. The lectures and instruction sheets give an account of the furnaces, balances and other appliances used in assaying; the sampling and preparation of ores; fluxes and reagents, and the methods used in assaying gold, silver and lead ores, copper and copper ores and mattes; gold and silver bullion and base bullion; cyanide precipitates and solutions.

In the laboratory the students learn as many of these methods as are possible in the time allotted to this course. Care is taken that a student shall be able to make such assays as would be required at a mine, and with a fair degree of

accuracy. Metallurgical and mining students usually have an opportunity of doing additional fire-assaying in their fourth year.

One lecture and two afternoons laboratory a week during the first term, for Metallurgical, Mining and Chemical Engineering students. Mr. Werner.

Reference books:—C. H. Fulton, "Manual of Fire-Assaying."

264. Fire-Assaying, Part II. In this course the remainder of the above assay-methods are practised and the student is given the opportunity of acquiring greater accuracy and speed and the ability to run a number of assays at the same time. The course is designed to fit students for entering an assay office at a smelter or refinery. The course is taken in the week preceding the opening of the fourth year, and is required of all Metallurgical Engineering students.

Students in the Chemistry course (II) and the Metallurgy course (VIII) take subjects 263 and 264 in a summer school before the third year.

265. Metallurgical Calculations. This is an introductory course on the application of exact chemical and physical laws to metallurgical operations, such as the combustion of fuel, the smelting of ores and the construction and heating of furnaces.

One lecture a week for Metallurgical students. Prof Stansfield.

Text-book:—J. W. Richards, "Metallurgical Calculations," Vol. I.

266. Colloquium. Metallurgical students have certain hours for reading in the library. They are required to read current metallurgical periodicals and to give an account of their reading at the Colloquium which is held once a week. Dr. Stansfield.

267. Summer School (Metallurgical Works). Metallurgical students are required to attend the summer school

which is held at the end of their third year. In this school visits are paid to metallurgical works both in Montreal and at a distance.

In addition to this, excursions may be made by the class from time to time to such metallurgical works as are within reach.

DENTAL METALLURGY. A course of 12 lectures and 12 laboratory periods for students in the Dental Department. Prof Stansfield and Mr. Werner.

Text-book:—Hodgen, "Dental Metallurgy."

Fourth Year.

271. METALLURGY (GENERAL).

(*a*) The metallurgy of copper, lead, gold, silver, zinc and nickel.

(*b*) The metallurgy of iron and steel.

Text-book:—L. S. Austin, "The Metallurgy of the Common Metals."

Reference book:—Bradley Stoughton, "The Metallurgy of Iron and Steel."

Two lectures a week during the session and a few laboratory demonstrations. Prof. Stansfield.

272. METALLURGY. (*a*) A more detailed account of the metals mentioned in 271.

Reference books:—Hofman, "Metallurgy of Copper"; Collins, "Metallurgy of Lead"; Ingalls, "Metallurgy of Zinc"; Collins, "Metallurgy of Silver"; Stoughton, "The Metallurgy of Iron and Steel"; Forsythe, "The Blast Furnace and the Manufacture of Pig Iron."

(*b*) General advanced metallurgy.

Text-books:—Fulton, "Principles of Metallurgy"; Hofman, "General Metallurgy."

(*c*) Metallurgical construction and design, and costs of metallurgical plant and operations.

Required of Metallurgical students. Three hours a week during the session. Prof. Stansfield.

274. METALLURGICAL LABORATORY, THESIS WORK. This time is devoted to the serious study of some metallurgical problem. Usually two students work together and present a thesis containing an account of important published work bearing on their subject, as well as the result of their own experimental researches.

Required of Metallurgical students. One half-period in the first term and three periods a week during the second term.

279. HYDRO-METALLURGY. A course of two laboratory periods and one lecture a week for one term for students taking Metallurgy (VIII).

275. ELECTRO-METALLURGY. This course of lectures is restricted to a consideration of the principles and construction of electric furnaces, and their uses for smelting and refining metals. Other parts of the subject are treated in the lectures on electro-chemistry. Two lectures a week during the second term and demonstrations in the laboratory for Metallurgical, Electrical and Chemical students. Prof. Stansfield.

Text-book:—A. Stansfield, "The Electric Furnace."

276. ELECTRO-METALLURGY LABORATORY. The work is arranged to illustrate the lectures. Groups of students operate each of the main types of electric furnace and become familiar with some of the principles of electric furnace construction and design. One period a week during the second term.

277. COLLOQUIUM. One hour a week during the session is given to informal discussion of research and other work being done in the department, and to other topics of metallurgical interest. Dr. Stansfield.

278. METALLURGICAL MACHINERY AND DESIGN. Two periods a week, during the second term, are devoted to drafting and designing metallurgical furnaces and plants. The course includes lectures on metallurgical machinery and design, which are included in 272.

Department of Mining Engineering.

PROFESSOR:—JOHN BONSALL PORTER.
ASSISTANT PROFESSOR:—JOHN W. BELL.
DEMONSTRATOR:— ————————
DOUGLAS RESEARCH FELLOW:—J. W. MCLEOD.
HARRINGTON RESEARCH FELLOW:—P. P. BAILY.

Third Year.

291. MINING ENGINEERING. *The principles and practice of mining.*—Prospecting, simple mining methods, excavation, explosives and blasting, rock drills, coal cutters, gold washing and dredging, hydraulic mining, quarrying, etc. Two lectures per week in the second term. This course is continued in the fourth year. (See 297.) Prof. Porter.

292. ORE DRESSING. *The theory and practice of ore dressing and coal washing.*—The forms in which ores occur and the effect of mixture, impurity, etc.; the theoretical considerations affecting mineral separations; the general mechanical operations involved; dressing machinery—breakers, stamps, rolls, screens, jigs, vanners, tables, washers, buddles, magnetic separators, etc. Two lectures per week and laboratory. This course is continued in the fourth year. (See 299.) Prof. Porter.

ORE DRESSING LABORATORY. Simple tests of ores, sands and gravels, by means of pan, vanning shovel, classifier, jig, etc. One afternoon per week in the second term. Further laboratory work in the fourth year. (See 300 and 301.)

Text-books:—H. C. Hoover, Principles of Mining, and R. H. Richards, Text-book of Ore Dressing.

293. MINE MAPPING. The calculations and plotting of mine surveys and mine maps. One afternoon per week in the first term. Mr. Bell.

Fourth Year.

297. MINING ENGINEERING. *The principles and practice of mining.*—Prospecting, deep wells, diamond drilling, open cast mining, shaft sinking, drifting, underground development, methods of mining, timbering, hauling, hoisting, draining, pumping, lighting, ventilating, etc.; mine accidents and their

prevention; general arrangement of plant, stores and dwellings; administration; examination and valuation of mines and mine reports. Three lectures a week. Prof. Porter.

298. MINING AND ORE-DRESSING MACHINERY AND DESIGN. *The application of mechanical and electrical engineering to mining, ore-dressing and metallurgy.*—Machinery for haulage, hoisting, pumping, ventilating, etc.; mine power plants, power transmission, tramways, cable ways, compressors, blowing engines, conveyors, cranes, etc.; mine and mill building, head frames, ore bins, lay-out of plant, etc. One lecture a week, and two drafting room periods in the second term for all students in course and one additional lecture per week in the second term for students taking alternative (*b*). Prof. Porter and Mr. Bell.

299. ORE DRESSING AND MILLING. Continuation of the ore-dressing course of the third year. Gold and silver milling, amalgamation, cyaniding, chlorinating, etc., concentration plants, coal breakers and washers, general conclusions regarding plant design and lay out. Two lectures a week in the first term. Prof. Porter.

302. MINING COLLOQUIUM. One hour a week is given to the presentation and discussion of papers on the work being done in the department and to other matters relating to mining and ore-dressing. Students are required to take the leading part in these exercises.

300. ORE-DRESSING LABORATORY. Two mornings per week in the first term are given to the ore dressing and hydraulic laboratories. This time is chiefly assigned to ore-dressing, and certain typical operations in each are carried out. The exercises in ore-dressing are a continuation of the third year laboratory work, but are arranged as far as possible for individuals rather than groups of students. They comprise experiments in crushing, classifying, jigging, slime treatment, magnetic separation, cyanidation and amalgamation, and include a complete trial run of the five stamp battery on a free milling gold ore.

(Students taking the geological alternative give one morning per week in the first term to petrographical laboratory and only one to ore-dressing and hydraulics, as above.)

301. ORE-DRESSING LABORATORY AND THESIS WORK. In the second term one whole day and one additional morning are given to individual work in the laboratory and to the preparation of a thesis to be filed in the departmental library, and, when suitable, published.

The subjects available for thesis work are very numerous and range from purely theoretical investigations in crushing, screening, classification, concentration, etc., to the experimental determination of the best methods for the treatment of particular ores and coals. Over one hundred and twenty-five different lots of ore are available, and the quantities are sufficient for work on a comparatively large scale. New ores are constantly being secured.

Text-books:—In addition to the text-books already specified for the third year, students are required to provide themselves with the Handbook of Mining Details or the Design of Mine Structures, both published by McGraw-Hill Co. In addition to using these formal text-books, students are required to look up a large number of special references and also to make frequent use of the works named below, those marked with a * being so freely used that they should, if possible, be purchased by each member of the class: Sir C. LeNeve Foster's Ore and Stone Mining; *F. Donaldson's Practical Shaft Sinking; *R. B. Brinsmade's Mining Without Timber; *M. S. Ketchun's Design of Mine Structures; Mayer's Mining Methods in Europe; *H. W. Hughes' Text-book of Coal Mining; Galloway's Lectures on Mining; Boulton's Coal Mining; *McCulloch and Futers on Winding Engines; Behr's Winding Plants for Great Depths; Saunders' Mine Timbering; *W. H. Storms' Timbering and Mining; M. C. Ihlseng's Manual of Mining; R. H. Richard's Ore-Dressing; T. A. Rickard's Stamp Milling of Gold Ores and *Sampling and Estimation of Ore in a Mine; H. Louis' Handbook of Gold Milling; H. F. Collins' Metallurgy of Silver; *Julian and

Smart's Cyaniding Gold and Silver Ores; Clennell's Cyanide Handbook; *Von Bernewitz Cyanide Practice; *Megraw's Details of Cyanide Practice; *Handbook of Milling Details; The Coal and Metal Miners' Pocket-book; *Text-book of Rand Metallurgical Practice, Vols. 1 and 2.

Research Fellowships and Advanced Courses.

Special courses of instruction are offered to graduate students in mining and ore-dressing. These courses include lectures, colloquia and individual work in the laboratories and drafting room. There are three endowed Research Fellowships in the gift of the Mining Department. These are assigned to graduates of the department who show particular aptitude for advanced work.

LABORATORIES.

The specific laboratory instruction in mining subjects proper begins in the third year, with courses in assaying, elementary ore-dressing and metallurgy. In the fourth year this work is elaborated, the general method of instruction being first to conduct a limited number of important typical operations, and then to assign to each student certain methods which he must study out in detail, and upon which he must experiment and make written report. In this work he is guided by the professors and fellows, and assisted by the other students, whom he must in turn assist when practicable. In this way every student acquires detailed knowledge of certain typical operations and makes at least one original investigation and at the same time gains a fair general experience of many of the important methods in use.

ILLUSTRATIONS, MUSEUMS, SOCIETIES, ETC.

In addition to a large series of lantern slides, the department owns a collection of over four thousand photographs and other illustrations, and a large and representative library of trade catalogues, etc. These collections are constantly being enlarged.

The museums of the building contain suites of ores, concentrates, fuels, and metallurgical materials, models of mines and furnaces, and collections of finished products.

The McGill University Mining Society meets fortnightly to read and discuss papers by graduate and student members, and occasionally to hear lectures by gentlemen eminent in the profession. The Society has been made a students' section of the Canadian Mining Institute, and its undergraduate members are therefore student members of the Institute, and receive all its publications. Papers read before the Mining Society may be entered in competition for all students' prizes offered by the Canadian Mining Institute. (See page 68.) Members may also attend meetings of the mining section of the Canadian Society of Civil Engineers, and may, for a nominal fee, become student members, and receive all the publications of the Society.

The Mining Society Camera Club is a departmental organization comprising members of the staff and students interested in Engineering photography. The club meets fortnightly, and excursions, competitions, etc., are arranged from time to time.

Field School in Mining.

294. The summer vacation field class, instituted in 1898, is now a fixed part of the course. All students of Mining in regular course are required to attend this class at the end of the third year.

The school lasts from four and one-half to six weeks, depending on where it is held. Of this period about one-sixth is given to field work in geology, one-half or more to mining work proper, and the remainder to an examination of ore-dressing and milling plants and metallurgical establishments. The Professor of Mining and his assistant and a member of the geological staff go with the party and hold daily demonstrations or classes. The students take notes and sketches on the ground, and afterwards are required to work up these notes and to submit a formal report.

During the last sixteen years these field parties have visited British Columbia eight times, Nova Scotia five times, Newfoundland, Pennsylvania and Michigan twice each. Numerous visits have also been made to Sudbury, Cobalt and other Ontario localities while *en route* to more distant points.

The instruction given during this field course is free to all Mining students, the only expense to them being the cost of board, lodging, and railway fares. These expenses are kept as low as is practicable and are in part met by the income of a fund provided by Sir William Macdonald, from which deserving students who require aid can also have money advanced them by applying to the Professor of Mining.

At the close of the regular work of the field school arrangements are made with the managers of the mines visited, and others, to give the members of the party individual employment for the remainder of the summer. All students are earnestly advised to engage in such work, and it is probable that it will be made obligatory at an early date in the future.

Department of Physics.

PROFESSORS:— H. T. BARNES. A. S. EVE.

ASSISTANT PROFESSORS:— L. V. KING. J. A. GRAY.

LECTURERS:— N. E. WHEELER. H. E. REILLEY.

DEMONSTRATORS:— A. A. SCOTT. V. HENRY.

The instruction includes a fully illustrated course of experimental lectures on the general principles of physics, embracing, in the first year:—*The Laws of Energy, Heat, Light, and Sound;* in the second year, *Electricity and Magnetism,* accompanied by courses of practical work in the laboratory, in which the students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements.

First Year.

311. HEAT, SOUND AND LIGHT. Two hours per week. Tuesday and Thursday mornings. Prof. Barnes.

Text-books:—Draper's Advanced Heat; Deschanel's Sound and Light (Renouf Publishing Co.).

312. LABORATORY COURSE. Three hours per week, spent in practical measurements in the Macdonald Physical Laboratory in conjunction with the lecture courses. See time table of sections.

Text-book:—Laboratory Manuscripts (Renouf Pub. Co.)

Second Year.

315. ELECTRICITY AND MAGNETISM. Two hours per week. Monday and Friday mornings. Prof. Gray.

316. LABORATORY COURSE. Three hours per week. (*a*) *Magnetism and Electricity.*—Measurements of pole strength and moment of a magnet; the magnetic field; methods of deflection, and oscillation; comparison of moments and determination of the elements of the earth's magnetism. (*b*) *Current Electricity.*—A complete course of measurements of current strength, resistance, and electromotive force; calibration of galvanometers.

Text-books:—Brooks and Poyser's Electricity and Magnetism; Laboratory Manuscripts (Renouf Publishing Co.)

317. LABORATORY COURSE. An additional course, involving four laboratory periods per week, with lectures, will be given in the month of September, for students in Electrical and Mechanical Engineering as part of the third year work introductory to courses 320-321.

Third Year.

320, 321. LABORATORY COURSE. Students of Electrical Engineering will continue their work in the Physical Laboratory in the third year. The following is a brief outline of the course:—

Magnetic elements and measurements; testing magnetic qualities of iron; theory and practice of absolute electrical

measurements; comparison and use of electrical standards of resistance, E. M. F., self and mutual-induction, and capacity; testing and calibration of ammeters and voltmeters; insulation and capacity tests; electric light photometry.

Wednesday morning at 10. Laboratory, Wednesday morning and afternoon. Prof. Barnes and Prof. King.

Text-book:—To be selected.

Fourth Year.

322. Electrical Theory. Optional course of lectures for students of Electrical Engineering.

325 to 329. Advanced Courses and Research. For advanced courses of lectures, see under honour courses in Arts. Owing to the complete equipment of the laboratories, there are special facilities offered for those desiring to take up research work in heat, optics, sound, electricity, and magnetism and radioactivity.

Department of Surveying and Geodesy.

Professor:—C. H. McLeod.

Lecturer:—A. J. Kelly.

Demonstrators:— { James Weir. / F. J. Cronk.

This course is designed to give the student a theoretical and practical training in the methods of plane and geodetic surveying, in the field work of engineering operations, and in practical astronomy. The lecture course is divided as follows:—

Second Year.

346. Surveying. Chain and angular surveying; the construction, adjustment, use and limitations of the transit, level, micrometer, compass and minor field and office instruments; railway circular curves; planimeter and pantograph; general topography; levelling; contour surveying; stadia surveying; land systems of the Dominion and provinces. Mr. Kelly.

Students are required to carry out the following field work:—

347. FIELD WORK. (1) A farm survey, using chain and compass; (2) a compass and micrometer survey; (3) a detail survey, using chain and offset; (4) levelling; (5) transit work.

348. MAPPING. Drafting from field notes of chain and angular surveys, and the plotting of topographical features. The tinting of maps with water-colours is also included in this course.

Third Year.

352. SURVEYING. Theory and use of instruments; hydrographic surveying; the use of the plane table; mining surveying; barometric and trigonometric levelling; elements of practical astronomy. Prof. McLeod.

353. SURVEYING. Theory and use of instruments; the use of the plane-table; mining surveying; magnetic surveying; hydrographic surveying; barometric and trigonometric levelling; theory and setting-out of transition curves; elements of geodetic surveying; elements of practical astronomy. Prof. McLeod.

354. FIELD WORK. (1) Level and transit practice, including the adjustment of the instruments; (2) the preliminary, topographic and location surveys for a railway, including simple, compound, transition and vertical curves, profile levelling, cross-sectioning for construction, and plotting of field notes; (3) a topographic survey with stadia transit; (4) a hydrographic survey of a river channel, including measurement of discharge; (5) a survey at night illustrating underground methods; (6) astronomical observations with sextant and engineer's transit.

Fourth Year.

359. GEODESY. The determination of time, latitude, longitude and azimuth; figure of the earth, measurements of base lines and triangulation systems; adjustment and reduction of observations. Prof. McLeod.

361. Field Work. (1) Determination of latitude (*a*) by transit and sextant observations of Polaris, (*b*) by zenith telescope, (*c*) by noon observations with transit and sextant; (2) determination of azimuth, (*a*) by equal altitude observations of the sun, (*b*) by observation of elongation of Polaris, (*c*) by observation of a circumpolar star with engineer's transit, (*d*) by means of solar attachments and solar compass; (3) determination of time, (*a*) by equal altitude observations of the sun with sextant and transit, (*b*) by observations of the meridian passage of stars with astronomical transit; (4) determination of longitude by clock comparisons and by lunar observation; (5) base line measurements; (6) precision levelling; (7) measurement of angles by geodetic methods; (8) plane table surveys.

All students are required to keep complete field notes, and to prepare maps, sections and estimates from their own surveys. This office work is principally done during the regular summer school session.

Field work is required of all students of the second year (except those taking the Practical Chemistry course), of students of the third year in the courses of Civil and Mining Engineering and Railway Transportation, and of the fourth year in the Civil Engineering course. The work will begin in 1915 on September 6th, and will continue for four weeks.

360. Geodetic Laboratory, Fourth Year.

The following determinations of the constants and errors of surveying instruments are made in the geodetic laboratory by the fourth year students in the Civil Engineering course:— (1) Measurement of magnifying power; (2) errors of graduation; (3) measurement of eccentricity of circles; (4) determination of errors of run of theodolite microscopes; (5) investigation of the errors of a graduation of a standard bar; (6) graduating scales with the dividing engine, and comparison thereof on the comparator; (7) investigation of the errors of graduation of circles on the circular comparator; (8) determination of the constants of steel tapes; (9) investigation of the graduation errors of steel tapes on the fifty-foot com-

parator; (10) determination of the scale value of level vials; (11) investigation of the accuracy of barometers; (12) determination of the collimation error of an astronomical transit by fixed collimators and by nadir method; (13) measurement of inclination error in an astronomical transit by nadir observations.

The equipment of the surveying department comprises the following, in addition to the apparatus of the observatory and geodetic laboratory:—

Fourteen six-in. transit theodolites with micrometer microscope attachments; seven portable meridian transits; two zenith telescopes; forty-nine transit theodolites by various makers with mining, gradienter, stadia, and solar attachments; a photo-theodolite; two 8-in. alt-azimuths; thirty-one dumpy and twelve wye levels; two gradient-telemeter levels; hand levels and clinometers; four precision levels; seventeen surveyors' compasses; one miner's dial; three prismatic compasses; pocket compasses; twenty-two marine sextants and artificial horizons; box sextants; two reflecting circles; seven plane tables; six current meters; Rochon micrometers; double image micrometers; field glasses; heliotropes; barometers; one 100-ft. Invar tape; 300-ft. and 500-ft. steel tapes, suitable for base measurements; steel chains and steel bands; linen and metallic tapes; sounding lines; pickets; levelling rods; micrometer targets; slope rods; pedometers; station pointer; pantographs, planimeters; slide rules and other minor appliances.

EXAMINATION FOR LAND SURVEYORS:—Any graduate in the Faculty of Applied Science in the Department of Civil Engineering and Land Surveying may have his term of apprenticeship shortened to one year for the profession of land surveying.

Text-books and books of reference:—Gillespie's Surveying, Johnson and Smith's Theory and Practice of Surveying, Shortland's Nautical Surveying, Greene's Practical and Spherical Astronomy, American Ephemeris and Nautical Almanac, Baker's Engineering Surveying Instruments, Breed and Hosmer's Principles and Practice of Surveying, Turnbull's Underground Surveying.

Department of Railways.

(This course may be discontinued after the close of the session 1916-1917.)

PROFESSOR:—H. O. KEAY.

ASSISTANT PROFESSOR:—WM. C. WILLARD.

LECTURERS:—A. A. GOODCHILD. E. F. LAWSON. GEO. C. WELLS. J. J. CREELMAN (on leave of absence). W. M. BAXTER. W. S. JOHNSON.

INSTRUCTORS:—R. GOLTMAN. H. F. MILLER.

Third Year Railway Transportation. (Operating and Executive.)

172. ELEMENTS OF POLITICAL ECONOMY. Two hours per week throughout the session. Dr. Leacock.
Text-book:—John Stuart Mill, Principles of Political Economy.

175. ENGINEERING LAW. See page 223.

135. ENGLISH. The preparation and criticism of reports on stated subjects, the object being to acquire a clear and accurate style. Mr. Latham.

371. FREIGHT SERVICE. Freight department organization, records and statistics, solicitation of freight, claims, clearing systems, waybilling, supervision of fast freight, car service, per diem, etc.—a full explanation of the methods of handling freight. Mr. Lawson.

228. MECHANICAL ENGINEERING LABORATORY.—See page 230.

86. MECHANICS. See page 210.

372. RAILWAY ENGINEERING. The locomotive and its work; locomotive and grade problems; effect of distance, rise-and-fall and curvature on train mile costs; estimate of probable receipts and expenditures; economics of location, reconnaissance, preliminary, and location surveys; turnouts; yards and terminals; details of construction; materials and construction. Mr. Willard.

For list of reference books, see page 255. (Fourth Year Railway Engineering.)

355. MAPPING. The paper location of a railway, map, profile, earthwork, mass diagram, overhaul, velocity profile, bill of material and cost estimate of same; the design of a freight yard, detailing of switches and complicated lay-outs and bill of track material.

373. RAILWAY MECHANICAL ENGINEERING. Elementary course on the steam engine, steam boilers, power plant equipment, steam turbines, gas engines, compressed air, and elementary locomotive construction and operation. Prof. Keay.
Text-book:—Ripper's Heat Engines. (Longmans, Green & Co.)

374. RAILWAY ORGANIZATION AND ACCOUNTING. Organization and work of the various departments; duties of officers; accounting. (A course preparatory to that of the fourth year.) Mr. Goodchild.

375. SHORTHAND. Mr. Goltman.

376. TELEGRAPHY. Mr. Miller.

Fourth Year Railway Transportation. (Operating and Executive.)

379. ACCOUNTING. The principles of accounting, a development of the course of the third year. Earnings and expenses; shop material and cost, labour and methods of paying for same; statements, their nature and value. Mr. Goodchild.

177. RAILWAY ECONOMICS. Transportation economics, including the theory of railway rates, railway commissions, taxation of railways, government ownership and control, the treatment of transportation problems in Europe and America, etc. Attention will be paid to questions closely connected with transportation in Canada, such as the relative powers of the Dominion and Provincial Governments, the tariff, government aid to railways, public lands and immigration. Dr. Hemmeon and Mr. Creelman.

111-112. ELECTRICAL ENGINEERING. For details, see page 217.

138. ENGLISH. Continuing the work of the third year. Mr. Latham.

380. FREIGHT SERVICE. An extension of the work of the third year. This course involves a discussion of the broader problems of the freight traffic department. Mr. Lawson.

381. RAILWAY OPERATION. Organization of conducting transportation department, the development of train dispatching in America, the development of the control of train movement in Europe, conducting transportation expenses, formation of time tables, standard train rules, rules for movement of trains on single track, rules for movement of trains on double track, general rules covering the operation of trains and handling of freight and passengers, clearance cards and other blanks, station service, yard service, road service, duties of dispatchers and operators. Mr. Baxter.

382. SIGNALS AND INTERLOCKING. The different forms of mechanical interlocking machines, locking sheets, dog charts, leadouts, ground connections, switch and signal operating and lock connections, electric route locking, power interlocking machines, electric switch and signal machines; block signalling, manual and controlled manual systems, automatic systems, electric signal apparatus; economic considerations, records, construction, maintenance and operation. Mr. Willard.

384. SIGNAL AND INTERLOCKING DESIGN. Design of crossing layout, track and leadout plan, locking sheet, dog chart, manipulation chart, bill of material and cost estimate; block signal location and control plan and signal circuits. Mr. Willard.

Books of reference:—Adams, Block Signalling; Wilson's Mechanical Interlocking for Railways; Derr's Block Signal Operation; Rules of the London North Western Railway; American Railway Assoc. Standard Code; Manual of Recommended Practice, American Railway Engineering Assoc.; Laverack's Locking; Proceedings, Railway Signal Assoc.; Publications of the School of Railway Signalling.

385. Passenger Service. The passenger department; its organization, methods and general principles governing passenger business; baggage system; mail and express. Mr. Wells.

150. Physical Geography and Climatology. Geographical subdivisions of the country; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products. Dr. Bancroft.

176. Railway Law. This subject is concerned largely with the Railway Act, and a general outline of the law of common carriers. Special attention will be given to such subjects as expropriation, damage suits against railway companies, and the more usual forms of contracts with carriers. Mr. Johnson.

386. Railway Mechanical Engineering. Locomotive tractive power, train resistance, tonnage rating, locomotive testing, comparative costs of locomotive operation, boiler incrustation, chemical control of water purifying plants, determination of hardness, acidity, etc., fuel handling, location, design, equipment and organization, with reference to roundhouses and railway shops, mechanical engineering requirements at terminals. Professor Keay.

387. Railway Mech. Eng. Designing. The working out of numerous problems connected with the motive power

department, supplemented by visits to power houses, shops, and locomotive terminals. Professor Keay.

Text-book:—Henderson's Cost of Locomotive operation (Railway Age Gazette).

388. RAILWAY ENGINEERING. General railway organization, organization and rules of the Maintenance of Way department, roadway, ballast, ties, timber preservation, rails, rail fastenings, turnouts, track accessories, structures, stresses in the track, track tools, track work, work train service, maintenance of way records and accounts, programme for expenditures, betterments. Mr. Willard.

Text-book:—Willard's Maintenance of Way.

389. ELECTRIC RAILWAYS. Preliminary considerations; probable earnings; interurban lines; city lines; effects of grades, curves and distance; time tables and schedules; rolling stock; railway motors; speed and current curves; train resistance and power-time curves; speed and energy curves; performance curves; trucks; brakes; controllers; construction; roadway; ballast; rail; power stations, and power distribution; repair shops; maintenance of track, equipment and transmission lines. Mr. Christie.

General reference books:—Canadian Railway Act of 1903; Wellington's Economics of Railway Location; Lavis, Railway Location Surveys and Estimates; Webb's Economics of Railway Construction; Gillette's Earthwork and its Cost; Allen's Railway Curves and Earthwork; Manual, American Railway Engineering Assoc.; Maintenance-of-way Rules and Instructions of the C.P.R.; Gotshall's Electric Railway Economics; Tratman's Track and Track Work; Paine's Roadmaster's Assistant; Camp's Notes on Track.

390. SHORTHAND. Mr. Goltman.

391. TELEGRAPHY. Mr. Miller.

392. CONDUCTING TRANSPORTATION. This subject is in the nature of an extension of the subject of Railway

Operation, and will involve the study of such matters as passenger and freight terminal design and control, station and yard service, wage schedules and agreements, car distribution and movement, and the analysis and control of transportation department expenses. Mr. Baxter.

Practical Railway Training.

Arrangements have been made with one of the larger Canadian railways whereby special apprenticeship training is offered to students in the Transportation and Mechanical courses of the University. Thus the summer vacations and a period of two years after graduation are utilized to give the students a broad practical railway experience, with a view to developing men for official positions.

The summer training for Transportation and Mechanical students will be the same for the first two years. At the end of that time students will be required to make a decision as to whether they desire to subsequently adopt the Transportation or the Mechanical Course.

The work arranged for Transportation students is as follows:—

First Year (vacation)—Three months as special apprentice at the railway shops.

Second Year (vacation)—Three months as special apprentice at a roundhouse.

Third Year (vacation)—Three months in road service as a student brakeman or fireman.

After graduation—Three months in station service.
Two months in stores department.
Three months in master mechanic's service.
Three months with superintendent's accountant.
Three months on track work.
Two months in car department.
Three months in yard office.
Five months in superintendent's office.

The practical training in the Mechanical course, following the first two vacation periods, will be mainly at the railway company's shops, together with such special assignments in the motive power department as will best serve to develop the men for larger responsibilities.

In order that no valuable time may be lost to students of the first year intending to follow either of these railway courses, they should consult with the Head of the Railway Department (Room 65, Engineering Building) before the beginning of their first vacation.

ENGINEERING SOCIETIES.

1. The headquarters of the Canadian Society of Civil Engineers are located in Montreal. Students in all departments of engineering are strongly recommended to become student members of the Society, which they can do on payment of a fee of $3.00. They are then entitled to the two volumes of the "Transactions," which are annually published, and to the use of the Society's rooms, 176 Mansfield Street. They also have opportunities of meeting the prominent engineers of the country and of being present at the fortnightly sessions, at which papers are read on current engineering subjects and works of construction.

A junior section of the Society, before which papers by students and juniors are read, meets once each month during the winter session.

Students are invited to compete for the prizes which are offered by the Society.

2. Students in Mining and Metallurgy are strongly recommended to become members of the McGill Mining Society, which, although a student body (see p. 244), is affiliated with the Canadian Mining Institute, the headquarters of which are in Montreal. Members of this Society receive the Transactions of the Institute without extra expense, and are entitled to attend all meetings and to compete for the prizes offered.

REGULATIONS CONCERNING PREREQUISITE SUBJECTS.

(1) No student proceeding to a degree will be allowed to take any subject, unless he has previously passed, or secured exemption, in all prerequisite subjects.*

(2) All students proceeding to a degree as above shall be classed as undergraduates and conditioned undergraduates, the latter being students who have defective entrance qualifications or who have failed in one or more of the subjects of their course in the year previous to that in which they are entered.

(3) Except in special cases, as provided below, no undergraduate or conditioned undergraduate shall be permitted to take any second year subject until he has passed or secured exemption in all matriculation requirements, and, similarly, no third or fourth year work may be undertaken until all first or second year subjects respectively shall have been passed or exempted.

The Faculty may waive this rule in special cases on recommendation of the Committee on Registration, Standing and Promotion.

(4) Partial students are those who are not proceeding to a degree. Such students may be admitted to classes without regard to the prerequisite rule, provided that they have obtained the permission of the head of each department con-

---

* It is to be noted that prerequisite subjects are those which, in the opinion of the Faculty, must have been mastered before the subjects to which they are prerequisite can be intelligently studied.

Concurrent subjects are those which so supplement one another that no one of them can be intelligently studied alone. If any subject has another which is concurrent to it, both must be taken in the same session.

cerned, and have also had their courses approved by the Committee on Registration, Standing and Promotion.

(5) In the event of a partial student desiring to obtain undergraduate standing in order to proceed to a degree, he shall not be given credit for work already done without the usual prerequisites until he has also passed examinations or secured exemptions in such prerequisites as may be demanded by the Committee and has had his case approved by a unanimous vote of the Faculty.

(6) All undergraduates who at the close of any session have passed the examinations in all the subjects of their year, or who at the opening of the following session have removed all conditions by passing supplemental examinations in the subjects in which they have failed, may pass into the next higher year as undergraduates.

(7) All students who have conditions that have not been removed at the opening of any session are conditioned undergraduates. The rules concerning prerequisite subjects make it possible, however, for a student whose failures are not too numerous or too serious, to complete his course in five years instead of four.

No student who has failed to remove all his conditions by the beginning of the second term of the fourth year will be permitted to graduate with his class.

List of subjects in the Faculty of Applied Science with the numbers of subjects which are prerequisite and concurrent.

No.	Year	Subject	Prerequisite	Concurrent
1	II	Arch. Design I (A, B, or C.)	18, 31, 36	6
2	III	" " II (A, B, or C.)	1	7
3	IV	" " III (A, B, or C.)	2	8
5	I	Elements of Architecture		
6	II	Elements of Composition		
7	III	Theory of Design	1	
8	IV	Theory of Planning	1	
9	III or IV	Ornament and Decoration	32, 37	
10	III or IV	" " "	32, 37	
11	III or IV	" " "	32, 37	
12	III or IV	" " "	32, 37	
13	I	General History (Arts II)		
14	II	History of Arch. (Classic)		32
15	III or IV	" " (Mediaeval)	13	33
16	III or IV	" " (Renaissance)	13	34
17	IV	" " (Modern	14	
18	I	Architectural Geometry		
19	III	Perspective		
22	III	Hygiene of Buildings		
23	III	Heating and Ventilation		
24	II	Building Construction		
25	II	Building Details		24
26	II & III	Structural Engineering I		
27	II & III	Structural Eng. (Draughting)I		26
28	IV	Structural Engineering II	82	
29	IV	Structural Design	82	28
30	IV	Professional Practice	24	
31	I	Architectural Drawing		5
32	II	" "		
33	III	" "		
34	IV	" "		
36	I	Freehand Drawing		
37	II	" "	36	
38	III	" "	37	
39	IV	" "	38	
40	III	Modelling		
41	IV	"	40	
42	I	Physics (Arts)		
43	I	Physics Lab. (Arts)		
51	II	General Chemistry	311, 312	52 or 53
52	II	Gen. Chem. Lab. (Eng. Students)	311, 312	51
54	II	General Chem. Lab. (Chem. & Met. Students)	311, 312	51
	III	Inorg. Qual. Anal. (Chem. & Met. Students)	53	51, 55
		Inorg. Qual. Anal.—Summer School (Chem., Eng. & Met. Eng. Students)	51, 52	55

No.	Year	SUBJECT	Prerequisite	Concurrent
55	II, III	Inorg. Qual. Anal. Lab. (Chem. & Met. Students) / Inorg. Qual. Anal. Lab.—Summer School (Chem. Eng. & Met. Eng. Students)	53 / 51, 52	51, 54 / 54
56	III	Organic Chemistry	51, 52	57
57	III	" " Lab.		56
58	III	Physical Chemistry		
59	III	Inorg. Qual. Anal.	51, 52	60
60	III	" " " Lab.		59
61	III	" Quant. "		62
62	III	" " " Lab.		61
65	IV	Organic Chem. & Lab.	56, 57	
66	IV	Physical Chem. & Lab.	58	
67	IV	Inorg. Quant. Anal. & Lab.	61, 62	
68	IV	Industrial Chemistry	61, 62	
69	IV	Applied Electro-Chem. & Lab.	51, 52	
71	IV	Mineral Anal. (Min'g Students)	59, 60	
72	IV	Adv. Inorg. Chemistry	58	
73	IV	Food Chemistry	56, 57	66
74	IV	History of Chemistry	51, 56	
81	II	Materials of Construction		
82	II	Graphical Statics	194 or Physics, Arts I	
83	II	Mechanics	194	198
86	III	Mechanics	83, 198	
87	III	Strength of Materials	83, 198	
88	III	" " " Lab.		87
89	III	Foundations and Masonry		87
90	III	Structural Design		87
91	III	Municipal Engineering	51	
94	IV	Theory of Structures	86, 87	
95	IV	Strength of Materials	86, 87	
96	IV	Bridge Design	90	94
97	IV	Hydraulics	83	
98	IV	" Lab.		97
99	IV	" Machines	86	97
100	IV	Municipal Engineering		97
101	IV	Hydraulics & Lab. (Short Course)	83	
111	III & IV	Elements of Elec. Eng.	198, 315, 316	
112	III & IV	Elec. Eng. Lab. (Elementary)		111
113	III	Electrical Engineering	198, 317	
114	III	Elec. Eng. Lab.		113
117	IV	Electrical Engineering	113, 114, 201, 320, 321	
118	IV	Elec. Eng. Lab. (Elec. Eng. Students)	113	117
120	IV	Elec. Light & Power Distrib.		117, 118

No.	Year	SUBJECT	Prerequisite	Concurrent
121	IV	Electric Traction		117, 118
122	IV	Electrical Designing	232	117, 118
123	IV	Applications of Electricity	113	117
131	I	English Composition		
132	II	" Summer Reading		
135	III	English (Ry. Transp. Course)	131	
138	IV	" " " "	135	
141	III	Geology, General		
142	III	Mineralogy	51	
143	III	" Determinative	51	
146	IV	Petrography & Lab	141	
147	IV	" (Advanced)	141, 142, 143	
148	IV	Ore Deposits & Economic Geol.	141	
149	IV	Geology of Canada	141	
150	IV	Phys. Geog. & Climatology		
151	IV	Crystallography	142	
152	IV	Geology, Historical	141, 142, 143	
153	IV	Geology Fieldwork (with 294)	141, 142, 143	
154	IV	" " (alt. a)		
171	III	Engineering Economics		
172	III	Elements of Political Economy (Ry. Transportation Course)		
175	III & IV	Engineering Law		
176	IV	Railway Law		
177	IV	Railway Economics	172	
191	I	Geometry		
192	I	Algebra		
193	I	Trigonometry		
194	I	Mechanics		
197	II	Analytic Geometry	192	
198	II	Calculus	192	
201	III	Calculus	198	
211	I	Mechanical Drawing		
212	I	Carpentry & Wood Turning		
213	I	Smith Work		
214	I	Foundry Work		
215	I	Shop Methods		
218	II	Mechanics of Machines	191, 192, 194	198
219	II	Mechanical Drawing	211	
220	II	Machine Shop Work		
221	II	Shop Methods		
223	III	Mech. Eng. Laboratory		226
224	III	Mechanics of Machines	83, 218	
225	III	Machine Design		87, 231 or 232
226	III	Mech. Eng. (General Course	51	228
227	III	" " (Mech.Eng.Students	51	228
228	III	" " Lab		226, 227 or 373
229	III & IV	Thermodynamics	51, 198	

No.	Year	SUBJECT	Prerequisite	Concurrent
230	III	Mech. Drawing (Summer Sch.)	219	
231	III	" " (Mech. Eng. Students)	230	225
232	III	Mech. Drawing (Elec. Eng. Students)	230	225
233	III	Smith Work (Summer School)	213	
234	III	Foundry Work (Summer Sch'l)	214	
235	III	Pattern Making	212	
236	III	Machine Shop Work	220	
237	III	Shop Processes and Managem't		235, 236
240	IV	Mechanics of Machines	224	
241	IV	Designing	225, 231	242
242	IV	Mach. Design (Mech. Students)	225	
243	IV	Mach. Design (Elec. Students)	225	
244	IV	Power Plant Design	227	
245	IV	Locomotive Engineering	227	244
246	IV	Marine Engineering	227	244
247	IV	Heating & Vent'n of Buildings	227	244
249	IV	Mech. Eng. Lab	227, 228	
251	IV	Thermodynamics	228, 229	
252	IV	Machine Shop Work	236	
253	IV	Mfg. Plant Design		
254	IV	Works Org. & Accounting	237	252
257	IV	Exp. Engineering	227, 228	249
261	III	General Elem. Metallurgy	51	
262	III	Metallurgical Lab		261
263	III	Fire Assaying, Pt. I	51, (52 or 53)	
264	III or IV	" " Pt. II	263	
265	III	Metall. Calculations		261
266	III	Metall. Colloquium		261
267	IV	Summer Sch. (Metal. Works)		
271	IV	Metallurgy (General	261	
272	IV	" (Metal. Students)	261	271
274	IV	Metall. Lab. Thesis	262 or 273	271
275	IV	Electro-Metallurgy	51	
276	IV	" " Lab		275
277	IV	Metall. Colloquium	261	271
278	IV	Metall. Machinery & Design	261	271
279	IV	Hydro-Metallurgy	261	272
291	III	Mining Engineering		
292	III	Ore Dressing & Lab	51	
293	III	Mine Mapping	346, 348	
294	III	Mining Field School	141	
297	IV	Mining Engineering	291	
298	IV	Mining Machinery & Design	81, 82, 226, 299	297
299	IV	Ore Dressing and Milling	292	
300	IV	" " Lab	263, 292	299
301	IV	" " " Thesis Work	300	
302	IV	Mining Colloquium		297, 299

No.	Year	SUBJECT	Prerequisite	Concurrent
311	I	Physics		
312	I	Physical Lab.		311
315	II	Physics		
316	II	Physical Lab.		315
317	III	Physics, Summer School		
320	III	Physics (Elec. Eng.)	315, 316, 317	
321	III	Phys. Lab. (Elec. Eng.)		320
322	IV	Advanced Phys. (Elec. Students)	320	
325		Heat (Advanced Physics)		
326		Light		
327		Sound		
328		Electricity & Magnetism		
329		Radioactivity		
341	I	Desc. Geometry		
342	I	Freehand Drawing		
343	I	Lettering		
346	II	Surveying	191, 193	
347	II	Surveying Fieldwork		
348	II	Mapping	342, 343	
350	III	Perspective Drawing	341	
351	III	Map Projections	341	
352	III	Surveying (Miners)	346, 347	
353	III	Surveying (Civils)	346, 347	
354	III	Surveying Fieldwork	346, 347	
355	III	Mapping (Civil & Ry. Tr.)	354	372
359	IV	Geodesy	351, 361	
360	IV	Geodetic Lab		359
361	IV	Geodetic Fieldwork	353, 354	
371	III	Freight Service		
372	III	Railway Engineering	83, 346, 347, 348	
373	III	Ry. Mech. Eng	218, 311, 312	228
374	III	Organ. & Accounting		
375	III	Shorthand	131	
376	III	Telegraphy		
379	IV	Accounting	374	
380	IV	Freight Service	371	
381	IV	Railway Operation		
382	IV	Signals and Interlocking	372	111, 112
384	IV	Sig. and Interlock. Des.		383
385	IV	Passenger Service		
386	IV	Ry. Mech'l Eng	228, 373	
387	IV	Ry. Mech'l Eng. Design		386
388	IV	Ry. Engineering	355, 372	
389	IV	Electric Railways	355, 372	111
390	IV	Shorthand	375	
391	IV	Telegraphy	376	
392	IV	Conducting Transportation		381
400	IV	Military Eng., etc		

FACULTY OF LAW.

LECTURES IN THIS FACULTY FOR THE SESSION 1915-1916 WILL COMMENCE ON MONDAY, OCTOBER 4TH, 1915.

STUDENTS MAY REGISTER AT ANY TIME DURING THE WEEK PRECEDING THE COMMENCEMENT OF LECTURES.

MATRICULATION.

Particulars regarding the Matriculation Examination are given on pages 25 to 39.

No application for examination in June will be received after May 20th.

The attention of students who intend to practise law in the Province of Quebec, or to be admitted to the notarial profession, is called to the statutory requirements for admission to study. These will be found on page 280.

PRIZES AND MEDALS.

See pages 64 and 69.

FEES.

See page 76.

GENERAL INFORMATION.

The lectures are delivered in the rooms furnished for the Faculty in the east wing of McGill College by its munificent benefactor, Sir Wm. C. Macdonald.

Students have the free use of the Law Library of the Faculty, to which large additions are continually being made. The Library now contains all the Reports of the several Provinces of Canada. The principal reports and legal periodicals are taken. A special room for Law students is provided in the University Library. The room is open during the day, and in the evenings from eight to ten o'clock.

SPECIAL REGULATIONS.

1. The lectures will be delivered between the hours of half-past 8 and half-past 9 in the morning, and between 4 and half-past 6 in the afternoon; and special lectures in the evening at such hours and in such order as shall be determined by the Faculty. Professors shall have the right to substitute an examination for any such lecture.

2. Undergraduates shall be known as of the first, second, or third year, and shall be so graded by the Faculty. In each year, students shall take the studies fixed for that year, and those only, unless by special permission of the Faculty.

3. At the end of each college year there shall be a general examination of all the classes, under the superintendence of the professors, and of such other examiners as may be appointed by the Corporation. The examination shall be conducted by means of printed questions, answered by the students in writing in the presence of the examiners.

4. At the end of the third college year there shall be a final examination of those students who have completed the curriculum. This examination shall be conducted by written papers, which may be supplemented by an oral examination. It shall cover all the subjects upon which lectures have been delivered during the three years' course. Those students who satisfy the examiners shall be entitled, after making the necessary declaration and payment of the graduation fee, to proceed to the degree of B.C.L. There shall be no sessional examination of students who are candidates in the final examination.

5. No student shall be considered as having kept a session unless he shall have attended regularly all the courses of lectures, and shall have passed the sessional examinations to the satisfaction of the Faculty in the classes of his year.

6. The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any student from attendance on any particular course or courses of lectures, but no distinction shall in consequence be made between

the examinations of such students and those of the students regularly attending lectures.

7. On the following days, when they fall within the session, no lectures will be delivered, viz.: Ash Wednesday, Good Friday, Easter Monday, and Thanksgiving Day. On the following days the morning lectures will be omitted, viz.: All Saints' Day (Nov. 1st), and Conception Day (Dec. 8th).

ADVISORY COMMITTEE.

The attention of the McGill Law Faculty has been drawn to the fact that students commencing their undergraduate course frequently need information with regard to law offices in which their services would be welcomed. For the purpose of furnishing such information and also of assisting the graduates of the Law School to obtain suitable positions in offices needing legal assistance, a number of members of the Bar have been kind enough to form themselves into an Advisory Committee. Members of the Bar desiring the assistance of students or young graduates are requested to communicate with the Secretary of this Committee, Mr. C. M. Cotton, B.A., B.C.L. The Committee consists of the following gentlemen:—C. J. Fleet, B.A., B.C.L., K.C.; W. J. White, M.A., D.C.L., K.C.; E. E. Howard, B.A., B.C.L.; Lawrence McFarlane, B.A., B.C.L.

THE COURSE OF STUDY.

The curriculum extends over three years. It includes lectures upon all the branches of the law administered in the Province of Quebec, and also upon Roman law, legal history, and the constitutional law of England, and of the Dominion. Its primary design is to afford a comprehensive legal education for students who intend to practise at the Bar of the Province. In all the courses the attention of students is directed to the sources of the law, and to its historical development.

The subjects studied in the different years are as follows:—

First Year.

Constitutional and Administrative Law.
Criminal Law (Introductory Course).
History of Quebec Law.
Law of Persons.
Obligations.
Pleading and Practice.
Real Property Law.
Roman Law.

Second and Third Years.

Agency and Partnership.
Civil Procedure.
Commercial Law (two courses).
Corporations and Joint Stock Companies.
Criminal Law.
Law of Evidence.
Marriage Covenants and Minor Contracts.
Prescription and Lease.
Municipal Law.
Public International Law.
Private International Law.
Real Property Law and Registration.
Successions, Gifts, Wills, Substitutions and Trusts.

The Faculty desires to impress upon English students the great importance of obtaining a familiar knowledge of French. In the practice of the profession in this Province it is indispensable that a lawyer shall be able to write and speak this language.

Moot Courts are held from time to time in order to afford practice in the presentation of legal arguments.

Those students who are able to take the B.A. course before entering upon their legal studies are strongly recommended to do so. Those for whom this is impossible are advised to take the first two years in the Faculty of Arts.

EXAMINATION RULES.

1. In all examinations the pass mark is 50 per cent.

2. In the final examinations the maximum in Roman Law, Criminal Law and Civil Procedure is 200 marks, and in all the other subjects 100. In the first year the maximum in Roman Law is 200 marks.

3. No student shall pass the final examination who in any two subjects fails to obtain 50 per cent. of the marks, unless he has obtained 65 per cent. of the aggregate total in all subjects.

4. No student shall pass the final examination who in any one subject has failed to obtain 50 per cent. of the marks, unless he has 60 per cent. of the aggregate total in all subjects.

5. No student of the first or second year shall obtain credit for the year if he fails in two subjects and in addition has less than 50 per cent. of the aggregate total.

6. Students of the first and second year who fail in two subjects only, may make good their standing by passing supplementary examinations at the beginning of the following session.

COURSES OF LECTURES.

Roman Law.

PROFESSOR:—R. W. LEE.

The course on this subject is intended to accompany the study of the Institutes of Justinian, with the text of which students are expected to become acquainted. The sources of the law will be described, and the gradual evolution explained by which the law of the city of Rome became fitted to be the law of the civilized world. A brief sketch will be given of the legal institutions of Rome in the first period and of the early constitutional history.

In the doctrinal part of the course matters of mainly antiquarian interest will be touched on but slightly. Those portions of the Roman law which have been followed most closely in the existing law of the Province, *e.g.*, property, servitudes, pignus and hypothec, and obligations, will be treated in detail, and the modifications made by the modern law will be noticed. Class examinations will be held from time to time, and a first and second prize in books will be given to the two students who obtain the highest marks in these examinations.

Text-books:—For the historical part, Walton's Historical Introduction to the Roman Law (2nd ed.); and for the Institutes, Moyle's or Sandar's Institutes of Justinian, or Girard, Manuel élémentaire de Droit Romain.

Books of Reference:—Muirhead's Historical Introduction to Roman Law; Muirhead's Institutes of Gaius; Buckland, Elementary Principles of the Roman Private Law; Puchta, Institutionen; Maine's Ancient Law.

Constitutional and Administrative Law.

PROFESSOR:—R. W. LEE.

The object of this course is to explain the fundamental principles of Parliamentary government and of the Rule of Law in the British Constitution. Particular attention is paid

to the organization of the Empire. In the second part of the course the B. N. A. Act is commented upon, and the leading cases discussed which illustrate the respective powers of the Federal and of the Provincial Legislatures.

Students are expected to read Dicey, Law of the Constitution (new edition, 1915), and Sidney Low, The Governance of England (1914). Reference may also be made to Keith, A.B., Responsible Government in the Dominions, three vols.; Todd, Parliamentary Government in the British Colonies; Houston, Constitutional Documents of Canada; Dicey, Law of the Constitution; Anson, Law and Custom of the Constitution; Lefroy, Canada's Federal System.

Students should supply themselves with copies of Lefroy, Leading Cases in Canadian Constitutional Law.

Obligations.

PROFESSOR:—A. GEOFFRION.

The method followed is mainly the explanation of illustrative cases. Frequent references are made to French and English decisions.

Legal History and Bibliography.

PROFESSOR:—ARCHIBALD MCGOUN.

This course comprises an outline of the history of the law in force in the Province of Quebec.

The main source from which our law is derived is the Customary Law of France, as modified by the principles of Roman Law, embodied in several of the codes or collections of Roman Law before the time of Justinian. The customs of France after being reduced to writing were further modified by the influence of modern Roman Law, which prevailed throughout the larger part of France. The ordinances of the French kings and the commentaries of the great jurists, from Cujas and Dumoulin down to Pothier, brought the civil law of France into the systematic form in which it was administered in this Province. The Custom of Paris, one of the most

important of those recognized in France, became formally the basis of the civil law in this country, and the ordinance of 1667 was the main authority for procedure.

Since the opening of the British régime the development of Lower Canadian civil law has proceeded independently of the civil law of France, where the Code Napoléon was passed early in the century. In Lower Canada a code on the same lines was adopted shortly before Confederation. Lower Canadian civil law has been modified by English law in commercial matters, and also by statutes passed in the Province. The criminal law has been derived almost exclusively from the criminal law of England.

The leading authorities upon the main branches of the law, with the reports of decisions of our courts, are brought under the attention of the students in this course.

Agency and Partnership.

PROFESSOR:—ARCHIBALD MCGOUN.

This course begins with the principles of the law of mandate, as laid down in the Civil Code of Lower Canada, and treats of civil and commercial agency. The rights and liabilities of principal and agent, both between themselves and in relation to third parties, is considered, and special attention is directed to the powers of agents in selling, pledging, and dealing with the property of the principal. The law relating to factors or commission merchants, brokers, and other agents, is explained.

In partnership the right of each partner to bind his fellow-partner in virtue of the mandate reciprocally given and enjoyed, leads to the distinction between civil and commercial partnership, and the limited partnership, or *société en commandite,* is also treated of. The distinction between partnership and joint stock companies is drawn and explained.

Municipal Law.

PROFESSOR:—ARCHIBALD MCGOUN.

This course is given in alternate years with the course on Agency and Partnership.

It includes an outline of the general principles of municipal law, and particularly of municipal law in this Province, with a brief historical introduction, showing the relation to the system under the old French law, and to the system, borrowed mostly from English law, introduced by statute into this Province.

The early charters granted to the cities of Quebec and Montreal, and their subsequent modifications down to the present time, will be considered, with references to legislative enactments and to jurisprudence interpreting the provisions of the law.

Numerous other laws upon municipal organization are explained, ending with the Municipal Code of 1870, which forms, with modifications, the basis of our present system of municipal law outside of the cities and towns. The legislation upon city and town municipalities is separately outlined, the more recent tendency being towards uniformity in these matters, secured in part by the adoption of the Cities and Towns Act in 1903, applying to new municipalities, and also to those previously organized under separate enactments, but which have decided to adopt the general act to cover matters not specially dealt with in their separate charters.

Law of Corporations and of Joint Stock Companies.

PROFESSOR:—G. W. MACDOUGALL.

General course on organization of companies under the Dominion of Quebec Companies Acts. Nature of various securities; rights and powers of directors and shareholders; amalgamation and reorganization of companies; winding-up proceedings.

Persons.

LECTURER:—ARNOLD WAINWRIGHT.

This course covers the law of acts of civil status, absentees, marriage, separation, divorce, filiation, minority and interdiction.

Criminal Law.

PROFESSOR:—HON. SIR CHARLES DAVIDSON.

This course includes:—

A history of the criminal law and criminal procedure of England, and of their introduction into and development throughout Canada; discussion of the Criminal Code and other statutes enacting criminal offences; of the rules of evidence in criminal cases; of the Fugitive Offenders' Act; of extradition; and, generally, of the principal features belonging to the criminal law of the Dominion.

Commercial Law, I.

PROFESSOR:—R. C. SMITH.

The subjects dealt with will include commercial sales and the law of insurance.

The course on commercial sales will include the fifth title of the Civil Code, in so far as applicable to sales of moveables, and a comparison of the common law rules and remedies.

Commercial Law, II.

PROFESSOR:—HON. MR. JUSTICE CROSS.

The subjects dealt with are: bills of exchange and promissory notes and banking, in one course, and shipping and carriers in another, the former being the subjects for the course of 1915-1916.

Civil Procedure, I.

LECTURER:—ED. FABRE SURVEYER.

This course of lectures, for the first year, deals with the first articles of the Code (1 to 214 inclusive) which refer to ordinary pleadings, exclusive of incidents. The course deals also with judgments by default to appear or to plead and judgments upon confession (C.P. 418 to 420 and 527 and 548), amendments to pleadings (513 to 526), procedure in summary matters (1150 to 1162), before the Superior and Circuit courts (1120 to 1149), the Commissioners' Court and the District Magistrate's Court (1253 to 1291). It includes the schedules and rules of practice referring to the above-mentioned articles and forms of the most common kinds of pleadings.

Civil Procedure, II.

LECTURER:—E. E. HOWARD.

The advanced course for the second and third years covers all matters of procedure not dealt with in the first year course, and includes trial, provisional remedies, such as capias, attachment before judgment, injunction, etc., and special proceedings, such as proceedings relating to corporations and public offices, mandamus, etc., as well as the rules of pleading in the more complicated classes of action. It will be divided into two parts, which will be taken in alternate years.

Successions, Gifts, Wills, Substitutions and Trusts.

PROFESSOR:—P. B. MIGNAULT.

Two titles of the Civil Code, that of Successions, and that of Gifts *inter vivos* and by Will are here explained. The order of the Code is followed, so that the whole subject is divided, somewhat unequally, into two courses given in alternate years.

First Course:—Successions and Gifts, approximately 35 lectures.

Second Course:—Wills, Substitutions and Trusts, about 30 lectures.

Marriage Covenants and Minor Contracts, Prescription, Lease, and Municipal Law.

LECTURER:—W. F. CHIPMAN.

Two courses—in alternate years.

During the session 1915-16 the subjects dealt with will be marriage covenants and minor contracts.

Real Property Law and Registration.

PROFESSOR:—W. DE M. MARLER.

FIRST YEAR COURSE:—

Distinction of things:—25 lectures.

Registration of Real Rights—its objects; modes of registration; effect; the cadastral system.

SECOND AND THIRD YEAR COURSE:—50 *lectures, in alternate courses.*

First Course:—Mode of acquisition of immoveables—25 lectures.

In this course, a deed of sale will be analyzed and its various clauses explained: the parties; the description and the measurement of land; the obligations of buyer and seller and the security for their performance; warranty, its modifications and results; the form and registration of the deed; the rights of the wife; the distinctions between sale and other modes of acquisition, and their effects on the parties; forced sales, their incidents and results; mitoyen walls.

Second Course:—Privileges and hypothecs—25 lectures.

Debts and causes of preference; characteristics of hypothecs—the various kinds, their history, conditions and effects; the ranking of hypothecs; the hypothecary action, its characteristics, incidents and results; privileges on immoveables; registration of privileges and hypothecs; examination of titles practically considered.

Public International Law.

PROFESSOR:—E. LAFLEUR.

Sovereignty and equality of independent states; recognition of belligerency and independence; justifiable grounds of inter-

vention; modes of territorial acquisition; territorial boundaries; doctrine of exterritoriality; treaties and arbitrations; laws of war; neutrality of states and individuals; laws of blockade; contraband; confiscation; prize-courts and their jurisprudence.

The students' attention will be specially directed to treaties, diplomatic relations, and international arbitrations, in which Canada is directly concerned.

Private International Law.

PROFESSOR:—G. W. MACDOUGALL.

Distinction between the *a priori* and positive methods; sources of the positive law of Quebec on the subjects; application and illustrations of the rules for solving conflicts of law in regard to the different titles of the Civil Code; comparisons between our jurisprudence and that of England, France and Germany.

Evidence.

LECTURER:—ARNOLD WAINWRIGHT.

This course consists of an explanation of the main principles and rules of evidence in the civil and commercial matters governed by the provisions of the Civil Code.

The opening lectures will be devoted to an examination of the general principles regulating the proof of facts involved in judicial investigations relating to such matters. This will be followed by an analysis of the different kinds of evidence by means of which these facts may be proved, with an explanation of the special rules applicable to each kind. The concluding lectures will deal with the manner of producing evidence, with special reference to the examination and cross-examination of witnesses.

In the course of the lectures articles 1203 to 1244 of the Civil Code, and such articles of the Code of Civil Procedure as relate to the subject of Evidence, will be commented upon and explained.

REQUIREMENTS FOR THE DEGREE OF D.C.L.

Every candidate for the degree of D.C.L., in course, must be a Bachelor of Civil Law of twelve years' standing, and must pass such examination for the degree of D.C.L. as shall be prescribed by the Faculty of Law. He shall, also, at least two months before proceeding to the degree, deliver to the Faculty twenty-five printed copies of a thesis or treatise of his own composition on some subject, selected or approved by the Faculty, such thesis to contain not less than fifty octavo pages of printed matter, and to possess such degree of merit as shall, in the opinion of the Faculty, justify them in recommending him for the degree.

The examination for the degree of D.C.L., in course, shall, until changed, be on the following subjects and authors, with the requirement of special proficiency in some one of the groups below indicated. In the groups other than the one selected by the candidate for special proficiency, a thorough acquaintance with two works of each group shall be sufficient, including in all cases the work first mentioned in each group and the first two works in the third group. In the first group one work on Public and one on Private International Law must be offered.

1. International Law.

A. Public:—

Twiss, Sir T., Law of Nations.
Hall, W. E., International Law.
Harcourt, Sir W. V., Letters by *Historicus*.
Ortolan, T., Diplomatie de la Mer.
De Martens, Droit International.
Holland, Studies in International Law.

B. Private:—

Savigny, Private International Law (Ed. Guthrie).
Bar, Private International Law (Ed. Gillespie).
Foelix, Droit International Privé.
Laurent, Droit Civil International.
Brocher, Droit International Privé.
Fiore, Droit International Privé (Ed. Pradier-Fidéré).
Dicey, Conflict of Laws.
Story, Conflict of Laws.
Lafleur, E., Conflict of Laws.

2. Roman Law.

Buckland, Elementary Principles of the Roman Private Law.
Muirhead's Roman Law.
Girard, Manuel de Droit Romain.
Ortolan's Institutes (Ed. Labbé).
Savigny, Roman Law in the Middle Ages.
Cuq, Les Institutions Juridiques.
Puchta, Institutionen.
Krüger, Römische Rechtsquellen.
Roby's Introduction to the Digest.
Hunter's Roman Law.
Walton, Historical Introduction to the Roman Law (2nd ed.).

3. Constitutional History and Law.

Dicey's Law of the Constitution.
Stubbs' Constitutional Law of England.
Hearn, Government of England.
Bagehot, English Constitution.
Low, The Governance of England.
Franqueville, Gouvernement et Parlement Britanniques.
Gneist, Constitution of England.
Hallam, Constitutional History of England.
May, Constitutional History of England.
Gardiner, Constitutional History of England.
Freeman, Growth of the English Constitution.
Mill, Representative Government.
Anson, Law and Custom of the Constitution.

4. Constitution of Canada and Works Relevant Thereto

Todd, Parliamentary Government in the British Colonies.
Bourinot, Federal Government in Canada.
Cartwright, Cases Under the British North America Act.
Lord Durham's Report on British North America.
Lareau, Histoire du Droit Canadien.
Houston's Constitutional Documents of Canada.
Volume O., Statutes of Lower Canada.
Maseres' Collection of Quebec Commissions.
Keith, Responsible Government in the Dominions.
Egerton, Federations and Unions in the British Empire.
Lefroy, Canada's Federal System.
Bryce, American Commonwealth.
Cooley, Principles of Constitutional Law.
Curtis, History of the Constitution of the United States.

Criminal Law, Jurisprudence, and Political Science.

Stephen, History of the Criminal Law.
Blackstone, Vol. IV.
Harris, Principles of Criminal Law.
Holland, Elements of Jurisprudence.
Salmond, Jurisprudence.
Austin, Lectures, omitting chapters on Utilitarianism.
Lorimer, Institutes.
Amos, Science of Law.
Woolsey, Political Ethics.
Lieber, Political Ethics.
Freeman, Comparative Politics.
Aristotle's Politics, by Jowett.

APPENDIX.

The attention of intending students is called to the following provisions of the Revised Statutes of Quebec and amendments, as bearing on the requirements for the study and practice of law in the Province.

I. Regulations Applicable to those who Intend to Become Members of the Bar.

N.B.—The articles are here abridged.

Article 4522 R.S.Q.—Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The examinations are held alternately in Montreal and Quebec every six months; namely, at Montreal, on the second Tuesday of each January, and at Quebec on the first Tuesday of each July.

All information concerning these examinations can be obtained from the Secretary-Treasurer of the General Council. The present General Secretary is Mr. Victor Martineau, K.C., 66 St. James street, Montreal.

Article 4524.—Candidates must give notice, as prescribed by this article, at least one month before the time fixed for the examination, to the Secretary of the section in which he has his domicile or in which he has resided for the past six months.

Article 4475.—This article provides that candidates holding the degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Letters from any Canadian or British University are dispensed from the examination for admission to study. Such candidates are required to give the notice mentioned above.

Article 4526 R.S.Q. (as altered by by-law of the General Council).—On giving the notice prescribed by Article 4524, the candidate pays the Secretary a fee of $2.00, and makes a deposit of $125.00 for a complete certificate of admission to study; of $70.00 for a partial certificate of admission to study;

and of $200.00 for admission to practice, which deposit, less $30.00, is returned in case of his not being admitted.

Article 4531.—To be admitted to practice, the student must be a British subject and must have studied regularly and without interruption during ordinary office hours, under indentures before a notary as clerk, or student with a practising advocate during four years, *dating from the registration of the certificate of admission to study*. This term is reduced to three years in the case of a student who has followed a regular law course in a university or college in this Province and taken a degree in law therein.

The Revised By-laws passed by the General Council of the Bar of the Province of Quebec, passed the 14th December, 1907, provide as follows:—

Article 53.—A course of lectures on law given and followed at a university or college in this Province, and a diploma or degree conferred on students by such university or college shall be held to be such as contemplated in Article 4531 R.S.Q. only when the university or college conferring the degree and the student who receives it shall have efficiently followed the programme herein set forth.

A regular course of law in a university or college in the Province shall be of seven hundred and fifty lessons of one hour each, on the subjects and in the proportions following:—

ROMAN LAW:—103 lectures:—This subject shall include an introduction to the study of law and the explanation of and comments on the Institutes of Justinian and the principal Roman jurisconsults.

CIVIL, COMMERCIAL AND MARITIME LAWS:—413 lectures:—Lectures on these subjects shall cover at least three years. They consist of the history of French and Canadian law, the explanation of and comments on the Civil Code of the Province of Quebec and the statutes relating to Commerce and Merchant Shipping.

CIVIL PROCEDURE:—103 lectures:—Lectures on this subject shall extend over at least two years. It shall consist of the explanation of and comments on the Code of Civil Procedure

and the statutes amending it, the organization of the Civil Courts of this Province and the history of the different judicial systems of the country; also, the special modes of procedure provided by statutes and laws of general application.

INTERNATIONAL LAW, Private and Public:—21 lectures.

CRIMINAL LAW:—69 lectures:—This subject includes the history of criminal law in Canada, the constitution of criminal courts, criminal procedure, comments on statutes relating to criminal law, the relation of criminal law in Canada to the criminal law of England. The lectures shall extend over two years.

ADMINISTRATIVE AND CONSTITUTIONAL LAW:—41 lectures:—These subjects include an inquiry into the different political institutions and the public institutions of the country, the powers, organization and procedure of the Federal Parliament and of the Local Legislature, the laws on Education and the Municipal Code.

Article 55.—Candidates for practice who hold a degree in law from a university or college in this Province shall produce with their notices a certificate from the principal or rector of such university or college to the effect that they have followed a course of lectures on law in the same during at least three years, in conformity with the by-laws of the Bar; and such certificate shall further specify the number of public lectures at which they shall have attended on each subject mentioned in the foregoing programme, during each of the said three years, and during the three years combined.

Article 56.—The examiners shall not consider a university degree in law valid for the purpose of admission to the Bar if they find that the candidate has not in fact followed the programme above.

II. Regulations Applicable to those who Intend to Become Notaries.

For the regulations applicable to candidates for the notarial profession, see Revised Statutes of Quebec, Arts. 4774-4807.

FACULTY OF MEDICINE.

I.

Foundation and Early History.

The Eighty-fourth session of the Faculty will be opened on Friday, October 1st, 1915, by an introductory lecture. The regular lectures in all subjects will begin on Monday, October 4th, at the hours specified in the time-table, and will continue until April 30th, 1916.

The Faculty of Medicine of McGill University is the direct outcome and continuance of a teaching body known as the Montreal Medical Institution, which was organized as a medical school in the years 1823-24 by Drs. Wm. Robertson, Wm. Caldwell, A. F. Holmes, John Stephenson and H. P. Loedél. These men constituted the first medical staff of the Montreal General Hospital, itself established in 1819. The first session of the Montreal Medical Institution opened in November, 1824, with 25 students, and the lectures were given at the house of the institution, No. 20 St. James Street, a building situated on the north side of St. James Street, at or near Place d'Armes.

In the year 1829, the Montreal Medical Institution became, by the formal act of the Governors of the Royal Institution for the Advancement of Learning, the Medical Faculty of McGill University. It is thus the oldest Faculty of the University.

The first session of the McGill Medical Faculty took place in the winter of 1829-30, and the first university degree, a medical one, was conferred four years later, in 1833.

There were no sessions held during the political troubles of 1836 to 1839, and it is owing to this fact that this is the eighty-

fourth instead of the eighty-seventh session of the Faculty, dating from its incorporation with the University in the year 1829.

The work of the Faculty was carried on for some years in the central part of the city until, in 1872, a building in the university grounds was provided by the governors.

This building met the demands of the steadily increasing number of students until 1885, when an addition was found necessary.

In 1893 the late Mr. John H. R. Molson purchased property adjoining the College grounds and enabled the Faculty to erect new buildings and extensively alter and improve those already in use. The new wings comprised a large lecture room capable of accommodating 150 students and new laboratories for pathology, histology, pharmacology and sanitary science. The library and museum of pathology were also enlarged and improved. Notwithstanding the greatly increased accommodation, a further extension became, in less than five years, almost imperative.

Before, however, the want of space and equipment was seriously felt, Lord Strathcona, in the names of Lady Strathcona and the Hon. Mrs. Howard, in 1898, contributed the sum of $100,000 towards the necessary extensions and alterations. These buildings, when completed, had more than twice the capacity of those previously occupied and enabled the Faculty to greatly increase the scope of its laboratory teaching. On the 16th of April, 1907, a part of these new buildings, together with the original medical building, was destroyed by fire. Fortunately, the wing containing the teaching laboratories and the chief lecture room of the Faculty was saved, though to some extent damaged by water and smoke. This wing was completely restored in time for the opening of the session, 1907-08, so that the work of the Faculty was not seriously interfered with.

A magnificent new building has since been erected on a new site, at a cost of considerably over half a million dollars. It was formally opened in 1911.

Requirements for License to Practise.

Intending students are reminded that a University degree in Medicine does not always give a right to practise the profession of medicine. It is necessary to conform with the medical laws of the country or province in which it is proposed to begin practice. Each province in Canada at present has its special requirements for its license and in most provinces a special standard of general education is insisted upon before beginning the study of Medicine. Students who intend practising in Canada are warned that in certain of the provinces it is necessary to be registered five years before obtaining a license to practise. It follows that entrance qualifications must be registered in the province in which the student intends to practise at the beginning of his course in Medicine.

For the convenience of students a list of the names and addresses of the Registrars of the Medical Councils in the several provinces is here published. Students should make themselves thoroughly acquainted at the beginning of the course with the regulations governing registration and license to practise in the province in which they intend to practise.

QUEBEC.—Dr. J. Gauvreau, 30 St. James Street, Montreal, and Dr. C. R. Paquin, Quebec.

ONTARIO.—Dr. J. L. Bray, 170 University Avenue, Toronto.

NEW BRUNSWICK.—Dr. Stewart Skinner, St. John.

NOVA SCOTIA.—Dr. A. W. H. Lindsay, 319 Pleasant Street, Halifax.

PRINCE EDWARD ISLAND.—Dr. H. D. Johnston, Charlottetown.

NEWFOUNDLAND.—Dr. H. Rendell, St. John's.

MANITOBA.—Dr. J. S. Gray, 358 Hargrave Street, Winnipeg, or W. J. Spence, B.A., Registrar University of Manitoba, Winnipeg.

ALBERTA.—Dr. G. Macdonald, Calgary.

SASKATCHEWAN.—Dr. G. A. Charlton, Regina.

BRITISH COLUMBIA.————————

Dominion Registration.

The Dominion Medical Council is now an accomplished fact, the first examinations for license to practice in the Dominion having been held at McGill University, October 7th, 1913. In order to take the examinations of the Council a candidate must have the license of a Canadian province or he must present a certificate from the Registrar of a Provincial Medical Council that he holds a medical degree accepted and approved of by the Medical Council of said province.

The next examination will be held at ————.

Full information may be obtained by writing to the Registrar, Dr. R. W. Powell, 180 Cooper Street, Ottawa, Ontario.

General Council of Medical Education and Enregistration of Great Britain.

The Matriculation Examination in Medicine of this University is accepted by the General Medical Council. Graduates of this University who desire to register in England are exempted from any examination in preliminary education on production of the McGill Matriculation certificate. Certificates of this University for attendance on lectures, practical work and clinics are also accepted by the various examining boards in Great Britain. To obtain a license from the General Council it is necessary to pass one of the examining boards of Great Britain in both primary and final subjects.

Detailed information may be obtained from one of the three registrars: Henry E. Allen, B.A., 299 Oxford Street, London; James Robertson, 54 George Street, Edinburgh; Richard J. E. Roe, 35 Dowson Street, Dublin.

Reciprocity with Great Britain.

The General Council of Medical Education and Enregistration of Great Britain has entered into reciprocal relations with the Medical Councils of the Provinces of Quebec, Nova Scotia, and Prince Edward Island. A holder of a degree in Medicine of McGill University who has obtained the license

of the Province of Quebec, may register with the Medical Council of Great Britain. He will thus be eligible for competitive examination for the Army, Navy and Civil Service, and will be allowed to practise in Great Britain, South Africa, Australia, India and the West India Islands without further examination.

QUALIFICATIONS FOR THE DEGREE.*

1. No one will be admitted to the degree of Doctor of Medicine and Master of Surgery who shall not have attended lectures for a period of five eight-month sessions in this University, or some other university, college or school of medicine, approved by this University.

2. Students of other universities, so approved, who may be admitted on production of certificates to a like standing in this University shall be required to pass an examination in primary subjects, and all examinations in the final subjects in the same manner as students of this University.

3. Graduates in Arts who have taken two full courses in general chemistry, including laboratory work, two courses in biology, including the subjects of botany, embryology, elementary bacteriology and dissection of one or more types of vertebrata, may, at the discretion of the Faculty, be admitted as second year students, such courses being accepted as equivalent to the first year in Medicine. Students so entering will, however, not be allowed to present themselves for the final examination in anatomy until they produce certificates of dissection for two sessions.

4. Candidates for the final examination shall furnish testimonials of attendance on the following branches of medical education; provided, however, that testimonials equivalent to,

---

*It should be understood that the programme and regulation regarding courses of study and examination contained in this calendar hold good for this calendar year only, and that the Faculty of Medicine, while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely, for the whole of a student's course, to the conditions here laid down.

though not precisely the same as those stated, may be presented and accepted:—

Biology, General Chemistry, Practical Chemistry, Physics, Histology, Embryology, Anatomy and Practical Anatomy, Physiology and Practical Physiology, Organic Chemistry, Biological Chemistry, Physiological Chemistry, Pharmacy, General Pathology, Bacteriology, Pharmacology, Therapeutics, Medical Jurisprudence, Hygiene and Public Health, Medical and Surgical Anatomy, Operative Surgery, Special Pathology, Morbid Anatomy, Clinical Chemistry, Principles and Practice of Surgery, Clinical Surgery, Theory and Practice of Medicine, Clinical Medicine, Obstetrics, and Diseases of Infants, Gynæcology, Pediatrics, Mental Diseases, Ophthalmology, Oto-Laryngology.

He must also produce certificates of having assisted at six autopsies, of having dispensed medicine for a period of three months, of having assisted at twenty vaccinations, and of having, under the direction of a properly qualified anæsthetist, administered an anæsthetic at least twice.

Courses of less length than the above will only be received for the time over which they have extended.

5. No one will be permitted to become a candidate for the degree who shall not have attended at least one full session at this University.

6. Every candidate must give proof of having attended during at least twenty-four months the practice of the Montreal General Hospital or the Royal Victoria Hospital, or of some other hospital of not fewer than 100 beds, approved by this University. During their third year, undergraduates are required to attend only the practice of the out-patient departments of the hospitals.

7. He must give proof of having acted as clinical clerk for six months in medicine and six months in surgery in the wards of a general hospital recognized by the Faculty, and of having reported at least ten medical and ten surgical cases.

8. He must also give proof of having attended for at least nine months the practice of the Montreal Maternity or other lying-in hospital approved by the University, and of having acted as assistant for at least twenty cases.

9. Every candidate for the degree must, on or before the 20th day of April, present to the Registrar of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and must at the same time deliver to the Registrar of the Faculty an affirmation or affidavit that he has attained the age of twenty-one years.

10. The examinations to be undergone by the candidate shall be in the subjects mentioned on page 290.

11. The following oath or affirmation will be exacted from the candidate before receiving his degree:

SPONSIO ACADEMICA.

In Facultate Medicinæ Universitatis.

Ego, A—— B——, Doctoratus in Arte Medica titulo jam donandus, Sancto, coram Deo cordium scrutatore, spondeo:—me in omnibus grati animi officiis erga hanc Universitatem ad extremum vitæ halitum persevaturem; tum porro artem medicam caute, caste et probe exercitaturum et quod in me est, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum; quæ denique iter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita præsens mihi spondenti adsit Numen.

EXAMINATIONS.

Frequent oral examinations are held to test the progress of the student, and occasional written examinations are given throughout the session.

The attention of first year students is called to the following regulations with reference to examinations in the first year:—

1. Class examinations shall be held during the session in each of the first year subjects. The marks obtained at these class examinations shall be added to the total marks obtained at the final examinations.

2. If the standing obtained by any student in the class examinations be not satisfactory, he shall not be permitted to take the final examinations.

The **Pass** and **Honour** examinations of each session are arranged as follows:

First Year.

Examinations in **Biology (including General Biology, Zoology, Histology and Embryology), Anatomy, General and Practical Chemistry, Physics and Bacteriology.**

Students who have taken one or more University courses in biology or chemistry before entering may be exempted from attendance and examination. Students exempted in these first year subjects are allowed only a pass standing, but may present themselves for examination if they desire to attain an honour standing. Students exempted from the general chemistry of the first year must take the organic chemistry of the second year in their first year.

Second Year.

Examinations in **Anatomy, Physiology, Organic and Biological Chemistry, Histology and Pharmacy.**

Third Year.

Examinations in **Anatomy, Physiology, Physiological Chemistry, Pharmacology, General Pathology, Bacteriology, Parasitology, Clinical Chemistry, Clinical Medicine and Clinical Surgery.**

Fourth Year.

Examinations in **Clinical Medicine, Clinical Surgery, Obstetrics, Gynæcology, Ophthalmology, Oto-Laryngology, *Pharmacology and Therapeutics, Medical and Surgical Anatomy, Mental Diseases, Medical Jurisprudence and Hygiene.**

Fifth Year.

Examinations in **Medicine, Surgery, Clinical Medicine, Clinical Surgery, Special Pathology, Gynæcology, Obstetrics, Ophthalmology Oto-Laryngology, Dermatology.**

A minimum of 50 per cent. in each subject is required to pass and 75 per cent. for honours.

---

* A special examination in prescription writing will be demanded and must be passed before receiving standing in pharmacology and therapeutics.

The work of one session must be completed and all examinations passed before a student is permitted to advance to the next.

Students who fail at the regular examinations in not more than three subjects of the first or second years and in not more than two subjects of the third and fourth years, may, at the discretion of the Faculty, be allowed to take the supplemental examinations before the beginning of the following session. These examinations will be held during the week preceding the regular opening of the session.

Students of the first, second, third or fourth years who fail in more subjects than are above specified are not eligible for supplemental examinations.

Students who fail to pass in a subject in which practical work is required may, at the discretion of the examiner, be required to repeat the course and furnish a certificate of attendance thereon.

Students who fail in one subject only of the final year may, at the discretion of the Faculty, be allowed a supplemental examination in that subject. Should the subject be one in which practical or clinical work is required, the student must furnish a certificate of additional hospital attendance or laboratory work before presenting himself for examination.

Students who fail at the examinations held at Christmas may, at the discretion of the examiners, be granted supplemental examinations at a period not less than three months after the regular examinations.

A student who, after being registered in the first, second, third or fourth years for three successive sessions, fails to qualify for advancement, or who, after being registered in the final year for three successive sessions, fails to qualify for the degree, shall not be permitted to register again as a student of Medicine in the University.

Applications for supplemental examinations must be in the hands of the Registrar at least three days before the date set for the beginning of the examination and they must be accompanied by a fee of $5.00 for each subject.

FELLOWSHIPS.

1. FELLOWSHIPS.—The A. A. Browne Memorial Fellowship:—The sum of $10,000 has been received by the Faculty from the committee of the A. A. Browne Memorial Fund. With this sum a fellowship has been established, to be known as the "A. A. Browne Memorial Fellowship." This fellowship is open to graduates of any recognized Medical School and is for the advancement of medical science, special preference being given to the subjects of obstetrics and gynæcology.

The James Douglas Research Fellowship:—The sum of $25,000 has been received from Dr. James Douglas, of New York, the proceeds to be devoted to coördinated research in the laboratories of pathology in or associated with the University.

The James Douglas Studentship:—A studentship in pathology, given by Dr. James Douglas, of New York, open to McGill graduates only, tenable for six years and of the value of $1,250 for the first year, increasing to $2,500.

2. MEDALS.—See page 69.

3. PRIZES.—See page 64.

MICROSCOPES AND HÆMOCYTOMETERS.

Each student is required to provide himself on beginning his studies with a first-class microscope for laboratory and private study throughout his course. The Faculty will supply the instruments necessary for demonstrations, etc. The microscope must be of substantial construction and be provided, as a minimum, with the following accessories, $^2/_3$, $^1/_6$ and $^1/_{12}$ oil immersion, and a substage condenser. Such an instrument will last a lifetime and is an essential part of the equipment of a practitioner in medicine.

Should the student not be provided with such a microscope he may, (1) purchase a guaranteed instrument from the purchasing department of the University for the sum of $60.00, or (2) on depositing a bond for $60.00, signed by two property-holders of his place of residence, hire and purchase a

miscroscope from the University by paying the sum of $7.00 per annum for five years and the further sum of $40.00 at the expiry thereof.

Any student selecting plan (2) will have the entire control of the instrument and may use it at home during the holidays, but until the final payment of $40.00 shall have been made it shall remain the absolute property of the University, and no refund of any annual payment shall be made under any circumstances.

Each student of the third year is required to have a hæmocytometer, and, in order that an instrument of uniform value and accuracy may be in the hands of all students, the University has purchased a supply, which will be sold at cost price.

Text-books.

ANATOMY.—Cunningham, Gray, Dorris, Quain (Eng. ed.), Piersol.
PRACTICAL ANATOMY.—Heisler, Rawling's Surface Markings.
PHYSICS.—College Physics, Reed and Guthe.
GENERAL CHEMISTRY.—General Chemistry, Macpherson and Henderson.
ORGANIC CHEMISTRY.—Remsen.
BIOLOGICAL, PHYSIOLOGICAL AND CLINICAL CHEMISTRY.—Laboratory Courses, Ruttan and Harding; Hawk's Practical Physiological Chemistry.
Reference.—Physiological Chemistry, Abderhalden; Witthaus' Manual; Hammersten, Physiological Chemistry.
EMBRYOLOGY.—Prentiss; McMurrich; Bailey and Miller Text-Book of Embryology; Quain's Anatomy, Vol. I.
COMPARATIVE ANATOMY.—Bourne, Comparative Anatomy of Animals.
PHYSIOLOGY.—Starling, Halliburton, Howell, Stewart.
Reference.—Buckmaster, Leathes, Starling (Lectures), Cannon, Hill (Recent Advances and Further Advances); Sherrington.
HISTOLOGY.—Piersol, Bailey, Lewis-Stohr (American ed.), Schafer's "Essentials," Bohm and Davidoff.
PATHOLOGY.—Prudden, Beattie & Dixon, Coplin, McFarland, Adami's Principles of Pathology, Adami's Inflammation, Adami & McCrae's Students' Text-Book.
ELEMENTARY BACTERIOLOGY.—Frost & McCampbell.
BACTERIOLOGY.—Hiss and Zinsser, Muir and Ritchie, McFarland, Jordan, Connell.
PARASITOLOGY.—Manson, Tropical Diseases (London, 1914); Stephen and Christophers, The Practical Study of Malaria (London, 1908); Chalmers and Castellani, Manual of Tropical Medicine, 1913.
Works of Reference.—American Text-Book of Pathology, Ziegler, Well's Chemical Pathology, Mallory & Wright's Technique, Cattell's Post Mortem Technique, Chester's Determinative Bacteriology and Wilson on The Cell.

PRACTICE OF MEDICINE.—Osler, Tyson, Wood and Fitz, J. M. Anders, Hare, Forchheimer's Therapeutics, McKissack's Dictionary of Medical Diagnosis.

CLINICAL MEDICINE.—Rainey and Hutchison, Musser's Medical Diagnosis, Simon, Klemperer, Vierdot's Medical Diagnosis, Sahli, Diagnostic Methods, Emmerson, Faught's Laboratory Diagnosis.

Reference.—Osler's Modern Medicine, Albutt and Rolleston's Systems of Medicine; Strumpell; Dieulafoy.

HYGIENE.—Davies, Harrington, Abbott's Transmissible Diseases, Notter and Firth, Parks and Kenwood, Stevenson and Murphy, Bergey, Rohé, Glaister.

OPERATIVE SURGERY.—Binnie, Kocher, Bughard, Pels-Lensden-Gardner, Bier, Braun and Kummell.

SURGERY.—Lexer and Bevan, Rose and Carless, Thomson and Miles, Keen's Surgery, Bryant and Buck, Mumford.

ORTHOPOEDIC SURGERY.—Bradford and Lovitt, Whitman.

MEDICAL JURISPRUDENCE.—Glaister, Mann. *Reference*:—Peterson and Haines.

THERAPEUTICS.—Hare, Forchheimer, Ortner.

Reference.—Forchheimer's Therapeusis of Internal Diseases.

PHARMACOLOGY.—Bastedo, Dixon, Cushny, Sollman, Wood.

Reference.—United States Dispensatory, Remington's Pharmacy.

DISEASES OF CHILDREN.—Rachford, Holt, Still, Ruhram, Koplik, Chapin and Pisek, McCaw.

NERVOUS DISEASES.—Church and Peterson, 8th ed. Atlas of the Nervous System and its Diseases, Jacob, Starr.

MENTAL DISEASES.—Insanity and its Treatment, Blandford, 4th ed. Church and Peterson, 8th ed. *Reference*: A Practical Manual of Insanity.—Brown and Bannister, Kraft Ebing.

DERMATOLOGY.—Stellwagon, Malcolm Morris, Walker's introduction to Dermatology, Hyde and Montgomery, Crocker, Pusey, Shamberg.

OBSTETRICS.—Whitridge Williams, Webster, Jewett, Evans, De Lee, Berry Hart.

GYNAECOLOGY.—Hart and Barbour, Blair Bell, Dudley Hurst, Gilliam.

OPHTHALMOLOGY.—Parsons, May; The Commoner Diseases of the Eye, Wood and Woodruff; De Schweinitz, Fuchs.

OTO-LARYNGOLOGY.—Politzer, J. B. Kyle; Gleason, Barnhill-Wales, Ballenger, Packard, Albert Gray, Bacon, St. Clair Thompson, Kerrison, Porter.

MEDICAL DICTIONARY.—Gould, Dorland, Dunglison, Hoblyn. Reference Hand-Book of the Medical Sciences.

GENERAL STATEMENT AND PLAN OF INSTRUCTION.

The period of study for the degree of Doctor of Medicine and Master of Surgery has been increased to five sessions of eight months each. With the additional year, by a rearrangement of the curriculum, more time will be given to the fundamental subjects of chemistry, physics and biology, while a thorough grounding will be given in the important subjects of anatomy, physiology, pharmacology and histology. The teaching in these branches, as well as in pathology and bacteriology, is largely conducted in the well-equipped laboratories of the College. The greater part of the added year is devoted to clinical instruction, as, in addition to the time provided in the third and fourth years, the fifth year will be given over practically entirely to clinical work in the wards of the hospitals.

Under the new arrangement of the curriculum, the subjects will be taken in the following order:

In the First Year: Biology, general chemistry (theoretical and practical), physics, anatomy, histology, embryology and bacteriology.

In the Second Year: Anatomy and histology are continued throughout the session; physiology is taken up for the first time and is continued throughout the session. There is a course in organic and biological chemistry, with laboratory work and a short course in pharmacy.

In the Third Year: Physiology is continued throughout the session, pharmacology is taken up, and also pathology, bacteriology, clinical microscopy, physiological chemistry and clinical chemistry. In this year students visit the hospitals for the first time, and receive instruction in small groups in the elements of clinical medicine and surgery.

In the Fourth Year: Systematic courses of lectures are given in the following subjects: medicine, surgery, obstetrics, gynæcology, medical and surgical anatomy, materia medica and therapeutics, mental diseases, medical jurisprudence and pediatrics. In ophthalmology and oto-laryngology, in

addition to a short course of lectures, instruction is given in the hospitals in the use of instruments and in the examination of normal cases. In this year also there is given a course in hygiene and preventive medicine, consisting of lectures, demonstrations and practical laboratory work. Theatre clinics, ward classes and out-patient clinics are conducted in the hospitals in medicine and surgery.

In the Fifth Year: Most of the students' time is spent in the hospitals. Theatre clinics are given on three days in the week in each hospital in medicine and surgery. There are also daily ward classes to groups of students in these branches. In the out-patient departments of both hospitals there are clinics to groups of students in the various special branches of gynæcology, ophthalmology, oto-laryngology, dermatology, orthopædics, pediatrics and genito-urinary diseases. Clinics, ward classes and demonstrations in obstetrics are given in the new Maternity Hospital. Students of the fourth and fifth years attend the Alexandra Hospital in groups for instruction in infectious diseases.

BIOLOGY.

The course in Biology for Medical students is conducted, conjointly, by the University Departments of Botany and Zoology. It consists of three parts:—

Part I.

PROFESSOR OF BOTANY:—F. E. LLOYD.
LECTURER IN BIOLOGY:—F. S. JACKSON.

This part of the course deals with (a) the rationale and simple technique of microscopic vision, including both light and dark field illumination (ultramiscroscope) and (b) the fundamental structure and physiology of the cell; protoplasm; special organs of the cell; inclusions; the role of colloids and crystalloids; imbibition; diffusion; osmosis; movement; photosynthesis; respiration; digestion; secretion and excretion, illustrated by a practical study of plant cells. Twelve lectures and twelve laboratory periods (three of each per week during the first month of the session).

Part II.

PROFESSOR OF ZOOLOGY:—ARTHUR WILLEY.
LECTURER:—J. STAFFORD.
LECTURER IN BIOLOGY:—F. S. JACKSON.

This part of the course is designed to introduce the student to certain fundamental facts of zoology. The lectures deal with the principles governing the formation of tissues and organs and lead up to an outline of vertebrate anatomy and physiology in which special attention is directed towards the class mammalia of which man is a member. The evolution of the mammalian type is illustrated by the progressive differentiation of the body cavities, the organs of breathing, circulation and excretion, the vertebrate heart, brain, skull, backbone, and teeth.

The laboratory work is concerned with elementary histology and with a practical and thorough study of the following selected types: Amœba, Paramecium, Euglena or Chilomonas, Hydra, Lumbricus, Amphioxus, Scyllium, Rana, Lepus.

Three lectures per week for fourteen weeks; three laboratory periods per week, each of three hours, from the beginning of the second month of the session to the end of the first term, and two laboratory periods per week for the first four weeks of second term.

Text-book recommended for reference:—H. G. Wells and A. M. Davies, "Text-book of Zoology," London (W. B. Clive, University Tutorial Press).

Part III.

PROFESSOR OF BOTANY:—F. E. LLOYD.
LECTURER IN BIOLOGY:—F. S. JACKSON.

This part of the course runs concurrently with Part IV and is designed to introduce the student to the field of cytology: amitosis and mitosis; reproduction, sexual and asexual; the methods of evolution; the mechanism of heredity; growth; senescence and death.

Thirty lectures (three per week) and twenty laboratory periods; two (each of three hours) per week from the close of Part II of the course to the end of the session.

MEDICAL CHEMISTRY.

PROFESSOR OF ORGANIC AND BIOLOGICAL CHEMISTRY:—R. F. RUTTAN.
ASSISTANT PROFESSOR OF BIOLOGICAL AND PHYSIOLOGICAL CHEMISTRY:—V. J. HARDING.
ASSISTANT PROFESSOR OF GENERAL CHEMISTRY:—V. K. KRIEBLE.
LECTURER IN PHYSIOLOGICAL CHEMISTRY:—T. P. SHAW.
LECTURER IN ORGANIC AND BIOLOGICAL CHEMISTRY:—A. R. M. MACLEAN.
DEMONSTRATORS IN GENERAL CHEMISTRY:—J. MARSHALL. H. S. REID.
DEMONSTRATOR IN CLINICAL CHEMISTRY:—R. H. M. HARDISTY.

Instruction in Chemistry for students in Medicine is given during a portion of each of the first three years.

First Year. During the first term the principles governing chemical action are studied in a systematic laboratory course. A printed synopsis of the work of each day is provided and necessary explanations given before beginning the work. The course includes a study of chemical phenomena; the preparation and properties of typical elements and compounds; the laws of chemical action; gravimetric and volumetric determinations, and a short course in qualitative analysis. The student is required to pay special attention to the keeping of an accurate record of his observations and calculations. Note books for this purpose are provided and are examined and criticized by the demonstrators. An examination is held at the end of the term.

During the first term a course of experimental lectures in *General Chemistry* is given; four per week, with frequent reviews and examinations. This course is designed to familiarize the student with the characteristics of chemical action and the conditions which modify it, rather than a detailed study of the preparation and properties of the elements and their compounds. The application of chemistry to physiology and pathology is made especially prominent. An examination in general chemistry is held at the end of the first term.

Second Year. A course of three lectures per week on *Organic and Biological Chemistry* is given during the whole session. In this course the facts and theories of organic and

physical chemistry, which have an essential bearing upon medical science, are first presented in the simplest form. This is followed by a more detailed study of those organic compounds and reactions which pertain to the phenomena of life. During the winter term a course of laboratory work in organic and biological chemistry, two periods per week, is given. In this course the student will study practically the chemistry of the more important organic substances which are found in the tissues, together with the chemical and physical conditions which influence their production. This course is intended to lead up to and partly include the subject matter of the usual courses in physiological and pathological chemistry.

The course includes a study of the carbon, nitrogen and energy cycles in nature; enzymes and catalysis; esterification, fats and lipoids; carbohydrates, amino acids, proteins, protein toxins, nuclein and purin bodies, urea, creatinin, indol, etc., together with the application of elementary physical chemistry to the problems of physiological chemistry.

Third Year. A course on *The Chemistry of Human Physiology* of two laboratory periods and one lecture per week is given throughout the autumn term. This course is designed to familiarize the student with the proximate constituents of typical foods, and the action on them of the digestive enzymes. This is followed by a study of normal urine and fæces, and the chemistry of muscle, blood, bile, etc. The aim of the course is to give the student a sound theoretical and experimental knowledge of the normal human metabolism. This course is followed by a laboratory course of about six weeks in *Clinical Chemistry* at the end of the third year. In this course the student is made familiar with the more convenient and practical methods for the chemical and physical examination of urine, fæces, blood, stomach contents, etc., as a preliminary to their application to cases in the hospitals. In addition, exercises are given in the detection of certain poisons, food preservatives, etc., which are of easy application by the general practitioner.

An *Advanced Optional Laboratory Course* in clinical and biological chemistry is offered during the winter term to those students whose preliminary training in chemistry and standing in the pass course show they are able to profit by it. This course includes the more recent exact methods of determination of creatinin, ammonia, acetone, etc., in urine; Kjeldahl determinations of nitrogen, cryosocopic determinations of fluids, etc., and must be taken by all candidates for the Sutherland medal.

Students will find it greatly to their advantage to have a practical knowledge of elementary chemistry before entering upon the study of Medicine. Graduates in Arts of recognized universities, on presenting certificates of having taken courses in theoretical and practical chemistry, and of having passed examinations in the same, may be exempted from the chemistry of the first year.

MEDICAL PHYSICS.

PROFESSOR OF PHYSICS:—H. T. BARNES.
DEMONSTRATOR:—H. E. REILLEY.

First Year.—This course is given in the Physics Building of the University. It consists of three lectures and a laboratory period of two hours per week throughout the first half of the session, and two lectures and a laboratory period of two hours per week during the last half.

The lectures are experimental in character, especially designed to meet the requirements of students in Medicine. The course includes a study of energy, simple machines, properties of matter, fluid pressures, fluid motion, capillary phenomena; production, transmission and interpretation of sound; temperature and temperature measurements, gas laws and kinetic theory, heat capacity, latent heats, laws of vaporization, humidity measurements, heat conduction; elements of magnetism, laws of electrostatics, electrostatic induction and condensers; primary batteries, Ohm's law and its applications, measurements of resistance and electromotive force, measuring instruments, magnetic effects of a current, induced currents,

induction coil, conduction through gases, properties of cathode rays and X-rays; radioactive substances and their radiations; laws of reflection and refraction of light, mirrors, lenses and lens combinations, microscopes, telescopes, spectra, spectrum analysis, colour, interference, crystallography, polarized light and saccharimetry.

In the laboratory the student learns the use of such instruments as the balance, vernier, spherometer, hydrometer, hygrometer, spectroscope, saccharimeter, electroscope. Verifications are made of Archimedes' principle, Boyle's law, laws of reflection and refraction, Ohm's law, etc. Measurements are taken of specific gravities, frequencies, specific heats, latent heats, electrical resistances, focal lengths, besides qualitative experiments illustrating the more important physical principles.

Text-book:—College Physics, Reed & Guthe.

ANATOMY.

PROFESSOR:—A. C. GEDDES.
ASSOCIATE PROFESSOR OF HISTOLOGY AND EMBRYOLOGY:—J. C. SIMPSON.
ASSISTANT PROFESSOR:—J. A. HENDERSON.
LECTURER:—A. E. ORR.
LECTURER IN HISTOLOGY:—W. M. FISK.
LECTURER IN APPLIED ANATOMY:—A. T. BAZIN.
LECTURER IN NEUROLOGY:—C. K. RUSSEL.
ASSISTANT TO PROFESSOR:—A. FREEDMAN.
DEMONSTRATOR:—W. H. SMYTH.
ASSISTANT DEMONSTRATOR:—J. J. WALKER.

Anatomy is taught in the most practical manner possible. There are courses in the first, second, third and fourth years. Each course includes practical work and the fourth year work is designed to apply especially to medicine and surgery.

The first year course includes histological technique; embryology, which comprises so much elementary comparative work as will enable students to understand the essential points in human development, and a study of human development up to the stage represented by the Kroemer Pfannenstiel Zygote; histogenesis and the histology of tissues.

The study of the whole of human organogenesis and of the histology of human organs forms a part of the work in the second and third year courses in anatomy.

Recently the Department has expended large sums of money in bringing its teaching equipment up to the highest possible standard and in providing increased facilities for research by graduates or senior students.

The Dissecting Room is open from 9 a.m. to 6 p.m., and in consequence of the excellent Anatomy Act of the Province of Quebec, an ample supply of fresh material is always available.

COURSES.

Human Anatomy.

First Year:—General embryology, histology of tissues, osteology and myology.

Second Year: — Splanchnology (including histology and organogenesis).

Third Year:—Neurology (including histology and organogenesis); organs of special sense.

Fourth Year:—Applied anatomy, including topographical and regional anatomy.

Dental Anatomy.

First Year (first term):—Regional anatomy of the head and neck; general dissection.

N.B.—In extension of this, a course on the special anatomy of the teeth is conducted by the Dental Department.

As in all the courses conducted by the Department of Anatomy a record of the work done is kept by graphic representation, students are advised to acquire some facility in drawing before entering upon their anatomical studies.

PHYSIOLOGY.

THE JOSEPH MORLEY DRAKE PROFESSOR:— _____

LECTURER AND FIRST ASSISTANT:— _____

LECTURERS:— _____
_____

DEMONSTRATORS:— _____
_____
_____

The purpose of this course is to make the student thoroughly acquainted, as far as time permits, with modern physiology, both from a scientific and practical standpoint,—its methods, its deductions, and the basis on which the latter rest. The course comprises lectures, laboratory work and demonstrations.

Lectures.—These extend over two years and are illustrated by experiments, diagrams and lantern demonstrations.

Laboratory Work.—The courses are arranged to illustrate the various branches of physiology. The students work in pairs, so as to give each man the best possible opportunity of verifying the facts for himself. As medical men have to treat human patients, special care is taken to make all the practical work illustrative of mammalian and human physiology, and as many exercises as possible are performed on mammals and on the students themselves.

The subjects are arranged as follows:—

1. EXPERIMENTAL PHYSIOLOGY. (a) Second year students work in the laboratory for one period of three hours per week throughout the year. The course comprises experiments on the heart, blood pressure and circulation, the pulse, respiration, temperature, the mechanics of digestion and the secretion of urine. (b) Third year students work for one period per week of two and a half to three hours throughout the year. The course comprises experiments on muscle and nerve, the special senses, the central nervous system, together with more difficult experiments on the lines of the work in the second year, and revision.

Demonstrations. In addition to the lectures and laboratory work, special demonstrations are given from time to time on

such subjects as cannot be dealt with in a large class, such as electrocardiographic work, heart perfusions, physiology of the central nervous system, refraction in the eye, and, generally, of whatever research work is being carried out in the department.

2. CHEMICAL PHYSIOLOGY (see under Chemistry).

Research Work.—Special arrangements are made for post-graduate work in physiology and for courses leading to the degrees of M.Sc. and D.Sc. For particulars apply to the Professor.

PATHOLOGY, BACTERIOLOGY AND PARASITOLOGY.

PROFESSOR:—J. G. ADAMI.
ASSOCIATE PROFESSOR OF PARASITOLOGY:—J. L. TODD.
ASSOCIATE PROFESSORS OF PATHOLOGY:—L. J. RHEA. HORST OERTEL.
LECTURERS:—JOHN MCCRAE. H. B. YATES. H. MCKEE. M. E. ABBOTT.
DEMONSTRATORS OF PATHOLOGY:—JOSEPH KAUFMANN. E. J. MULLALLY.
ASSISTANT DEMONSTRATORS OF PATHOLOGY:—L. L. REFORD. E. H. MASON. W. J. SCOTT.
DOUGLAS STUDENT IN PATHOLOGY:—R. H. MALONE.
DOUGLAS FELLOW IN PATHOLOGY:—J. J. OWER.

The following courses are announced, subject to revision:—

Pathology.

1. A course of lectures in general pathology to students of the third year. Lectures are delivered three times weekly throughout the winter.

2. Demonstrations upon the autopsies of the week to students of the two final years. These will be given during the session by the pathologists of the Montreal General and Royal Victoria Hospitals.

3. The performance of autopsies. Each student is required to take an active part in at least six autopsies. These are conducted at the General and Royal Victoria Hospitals. In addition to the actual performance of the *sectio cadaveris,*

the students are expected to attend practical instruction given with each autopsy in the method of preparation and microscopical examination of removed tissues, so as to become proficient in the methods of preparation, staining and mounting.

4. Practical course in morbid histology to students of the third year; two periods of two hours each, given weekly during the winter term. Students are instructed in the staining and mounting of specimens. Following upon this, in order that the student may make the fullest study of the material, and not spend most of his time in the mechanical processes of preparing it, at each period some five or six mounted sections are distributed to each; lantern demonstrations are given of the main features of the series, and the student is expected to make drawings of the salient features of each specimen.

5. A course in special pathology with demonstration of museum specimens and oral examinations, weekly during the winter and spring terms to students of the fourth and fifth years.

In addition to the above, the staff of the department gives instruction to more advanced students who desire to undertake special work in the laboratories; this more especially during the vacations.

Throughout the year the Curator of the Museum, Dr. M. E. Abbott, assisted by Dr. J. Kaufmann, conducts a series of museum demonstrations to students of the fourth and fifth years in groups. The classes in clinical pathology and microscopy are described in connection with the Department of Clinical Medicine.

In connection with this Department a Research Fellowship and a Research Studentship has been established by Dr. James Douglas, of New York.

Bacteriology.

1. A course of twelve lectures upon elementary bacteriology for students of the second year.

2. A course of lectures upon bacteriology in relation to disease, for students of the third year. Lectures three times weekly during the autumn term.

3. A practical course upon bacteriological technique and the preparation of bacteriological media to students of the second year in the winter term. This is conducted by the staff of the Bacteriological Department.

4. A practical course upon the bacteriology of infectious diseases for students of the third year: two periods of two hours each per week during the autumn term. The object of this course is to familiarize the student with the characters of the more common pathogenic bacteria and more particularly to render him proficient in the employment of the methods of clinical bacteriological diagnosis.

5. An optional course upon Infection and Immunity, by Drs. Meakins and Gurd. This course is largely practical and comprises a study of the phenomena of infection, together with the methods of preparation of vaccines and antitoxic sera

Parasitology

The main feature of this course is a series of twenty lectures and demonstrations, illustrated by lantern slides, and by specimens both gross and microscopical. Demonstrations of the special methods used in the study of animal parasites are given in the laboratory.

Since the most important of the diseases caused by animal parasite causing malaria, its life, its transmission, and the organisms, and the diseases which are due to more highly organized animal parasites are but briefly mentioned. In the lectures, a broad view is first given of the importance of the protozoa as pathogenic agents and of the methods by which their importance as producers of disease has been discovered. The protozoa are then considered as a whole and their functions and characters are considered. Malaria is the best known and most completely studied of all the diseases caused by protozoa; analogies to what is known to occur in malaria are frequently discovered during the investigation of other maladies caused by pathogenic protozoa. For this reason the parasites are due to protozoa, most attention is paid to these means of destroying it, are studied with considerable thoroughness. The diseases caused by other protozoa are then

considered, but in less detail than in the case of malaria. Five lectures are spent on the worms and in alluding to those insects and other arthropoda which are immediately harmful through their parasitism upon men and animals. The last lecture considers all those factors which together constitute climate.

PHARMACOLOGY AND THERAPEUTICS.

PROFESSOR:—A. D. BLACKADER.
ASSISTANT PROFESSOR OF PHARMACOLOGY:—J. W. SCANE.
LECTURER IN PHARMACY AND DEMONSTRATOR OF PHARMACOLOGY:—J. L. D. MASON.
DEMONSTRATOR OF PHARMACOLOGY:—WESLEY BOURNE.

The lectures on this subject are graded in the following manner:—For students of the second year there is a course in practical materia medica and pharmacy, with demonstrations and exercises in the laboratory. Prescription writing and the various modes of administering drugs are explained and illustrated.

The course in pharmacology is given in the third year and consists of a systematic course of lectures on the physiological action of drugs, with demonstrations, and practical laboratory work, during which the student is given the opportunity of studying by experiment the action of the more important drugs.

In the fourth year a systematic course on the therapeutic application of drugs and remedial measures will be given, in which an effort is made to teach the practical use of our knowledge of the effects produced by remedial measures, and of the action of drugs in the cure or relief of the various pathological conditions met with in disease. In the fifth year, special attention will be given to the subject of practical therapeutics in the ward classes by the attending physician in both the Montreal General and Royal Victoria hospitals.

The Eddie Morrice Laboratory, comprising pharmacological and chemical research rooms, has, through the liberality of the late Mr. Morrice, been fully equipped with all necessary apparatus for carrying on extended research work.

MEDICAL JURISPRUDENCE.

PROFESSOR:—D. D. MACTAGGART.

In this course the criminal and civil aspects of legal medicine are taken up and fully discussed, also lunacy and its medico-legal aspects. Special attention is devoted to the subject of blood stains, the chemical, microscopic and spectroscopic tests for which are fully described and demonstrated, also the serum test for the detection of human blood. The modes of action of poisons, general evidence of poisoning and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, post-mortem appearance and chemical tests. The post-mortem appearances are fully illustrated by specimens. Practical demonstrations will be given once a fortnight.

HYGIENE.

STRATHCONA PROFESSOR:—T. A. STARKEY.
ASSISTANT:—R. ST. J. MACDONALD.
DEMONSTRATOR:—F. B. JONES.

The instruction in hygiene given to the medical undergraduates has been carefully designed to meet the requirements of the practitioner in medicine.

The whole course is essentially practical in its nature and is in sharp contrast with the truly didactic method of teaching. It relates chiefly to the investigation of the causes of disease, the channels of transmission and the adoption of modern preventive measures—all problems which are likely to confront the medical man daily in the prosecution of his duties.

One lecture and one demonstration period are allotted each week throughout the session.

The practical work includes a series of visits to places of hygienic interest.

An optional practical course more advanced than the one above referred to is open to students wishing to go into higher detail.

Special courses of instruction are given to graduates and others wishing to qualify themselves in sanitary work, or to

obtain the diploma of Public Health. (See Special Courses in Hygiene, page 321.)

The laboratory is provided with all apparatus needed in every branch of public health work. Advanced students are furnished with separate quarters and with every facility for the prosecution of research work.

The museum is fully equipped and contains full-sized working models and apparatus illustrative of the application of all hygienic principles. See description of museum, page 387.

MEDICINE AND CLINICAL MEDICINE.

PROFESSORS:— F. G. FINLEY. C. F. MARTIN. H. A. LAFLEUR.

ASSOCIATE PROFESSOR:—W. F. HAMILTON.

LECTURERS:— A. A. BRUÈRE. JOHN MCCRAE. A. H. GORDON. J. C. MEAKINS. C. A. PETERS. H. B. CUSHING.

LECTURERS IN CLINICAL NEUROLOGY:— D. A. SHIRRES. C. K. RUSSEL.

DEMONSTRATORS:— F. M. FRY. C. F. WYLDE. A. A. ROBERTSON. J. G. BROWNE. J. KAUFMANN. D. W. MCKECHNIE. C. F. MOFFATT. R. H. M. HARDISTY. GEO. SHANKS.

ASSISTANT DEMONSTRATORS:— W. W. FRANCIS. A. L. FOSTER. D. G. CAMPBELL. T. F. COTTON. J. A. C. TULL. A. H. MACCORDICK.

A didactic course of forty lectures is given in the fourth year, and deals with the general pathology and treatment of disease. The course is intended as an introduction to clinical work, and is illustrated by museum specimens, plates and diagrams.

Clinical Medicine.

The instruction in clinical medicine is conducted in the theatres, wards, out-patient rooms and laboratories of the Royal Victoria and Montreal General hospitals.

For the five-year course the instruction extends throughout the third, fourth and fifth years. In the third year, demonstrations are given to groups of students in the methods of examination, and in normal and abnormal physical signs, in the wards and out-patient departments of the hospitals. This is supplemented by courses in clinical chemistry and microscopy at the College.

In the fourth year, clinical instruction is given in the theatres and out-door departments or wards of the hospitals.

The fifth year is devoted exclusively to hospital work. Each student is required to personally conduct and record the routine examination of patients assigned to him in the wards of the hospitals. He is also required to carry out the necessary examination of blood, sputum and urine in the hospital laboratories and to attend and report on autopsies on patients assigned to him.

Instruction in the theatres is given on four days of the week. Bedside classes in Case reporting and diagnosis are held, as well as a daily ward visit, and, as occasion offers, joint sessions are held with the pathological department, in which the clinical and pathological features of certain cases are compared.

The out-door department of each hospital has a large neurological clinic, which is utilized for instruction, and for teaching the uses of electricity in diagnosis and treatment.

Special clinics are also devoted to the diseases of children, and groups of students attend in rotation.

Infectious diseases will be demonstrated to groups of students in the fourth and fifth years, the large number of cases under treatment at the Alexandra Hospital being available for this purpose.

Clinical Microscopy.

This course, which is given during the winter term of the third year, is essentially a practical one and is in charge of the professors and teachers connected with the department of Clinical Medicine.

It is a laboratory course, forming part of the third year instruction in Medicine, and is held in the pathological laboratory of the Medical Building. The classes are held twice weekly, each demonstration lasting two hours.

Students are given instruction in the microscopic appearances of the normal and abnormal sediments in the urine, in the preparation and staining of films from pus and sputum for pathogenic bacteria, in the methods of examination of the blood, including the use of the hæmoglobinometer, hæmocytometer, microspectroscope, the determination of the specific gravity, agglutination tests, the examination of fresh films, the preparation of stained blood films and the method of making differential leucocyte counts. The instruction also comprises the microscopic examination of stomach contents and fæces, for the recognition of abnormal cellular elements, fat, blood, bacteria and animal parasites; the examination of the secretions of the respiratory tract; the examination of exudates and other pathological fluids obtained by puncture, and also the examination of hairs for the parasites of ringworm and favus.

In addition to this, the student is given an opportunity of examining the various bacteria of importance in clinical medicine and surgery.

Various specimens of special interest, which are found in the hospitals from time to time, are examined as occasion arises at the demonstrations.

PEDIATRICS.

PROFESSOR:—A. D. BLACKADER.

LECTURERS:— D. J. EVANS. G. G. CAMPBELL. F. M. FRY.

DEMONSTRATORS:— C. F. WYLDE. W. E. ENRIGHT.

A didactic course on the diseases of infancy and childhood, including the feeding of infants, is given during the session to students of the fourth year. Clinical and didactic lectures are given on diseases of the new-born at the Montreal Maternity Hospital. In the Montreal General and Royal Victoria hospitals weekly clinical lectures and ward demonstrations on diseases of childhood will be given to students of the fifth year and groups of students in rotation will be assigned work in connection with the out-patient children's departments of both hospitals. The new Foundling and Baby Hospital, which has recently been opened, with a capacity of 100 beds, will be utilized during the session for a series of demonstrations in infant feeding.

HISTORY OF MEDICINE.

PROFESSOR:—ANDREW MACPHAIL.

A course of twelve lectures will be given upon the history of medicine to all undergraduates in the Faculty who desire to inform themselves upon the progress of the science. It is the intention to examine the causes which produced the varying conceptions of medicine in times past, rather than burden the student with a narration of facts and a recital of biographies.

SURGERY AND CLINICAL SURGERY.

PROFESSORS:— GEORGE E. AMRSTRONG. J. ALEX. HUTCHISON.

ASSISTANT PROFESSORS:— A. E. GARROW. J. M. ELDER.

LECTURERS IN CLINICAL SURGERY:— KENNETH CAMERON. E. W. ARCHIBALD. W. L. BARLOW. C. B. KEENAN. A. T. BAZIN. E. M. VON EBERTS.

LECTURERS IN ORTHOPOEDIC SURGERY:— W. G. TURNER. A. McK. FORBES.

LECTURERS IN GENITO-URINARY SURGERY:— R. P. CAMPBELL. J. W. HUTCHINSON.

LECTURERS ON ANAESTHESIA:— F. W. NAGLE. W. B. HOWELL.

DEMONSTRATORS OF CLINICAL SURGERY:— A. R. PENNOYER. W. H. P. HILL. C. K. P. HENRY. F. McKENTY. F. A. C. SCRIMGER. W. J. PATTERSON. F. J. TEES.

DEMONSTRATOR OF ORTHOPAEDIC SURGERY:—J. A. NUTTER.

DEMONSTRATORS OF GENITO-URINARY SURGERY:— F. S. PATCH. R. E. POWELL.

ASSISTANT DEMONSTRATORS OF CLINICAL SURGERY:— L. L. REFORD. F. B. GURD. W. H. SMYTH.

The clinical material in the Montreal General and Royal Victoria Hospitals is very large in amount and varied in character. There are about five hundred beds in the two hospitals, and the service is a very active one. It is, therefore, possible to make the teaching in Surgery largely clinical and practical.

During the latter part of their third year the students are sent to the out-patient departments of the hospitals for instruction in the methods of examining patients. They are also taught to differentiate the abnormal from the normal, to apply bandages, to do dressings and apply splints.

In their fourth year they attend Surgical Clinics in the amphitheatres of the hospitals two days in the week. They receive clinical instruction, witness the reduction of fractures

and dislocations and are present during the performance of operations, the details of which are explained and demonstrated. They are also taken into the wards in groups, are taught to observe symptoms, to arrive at a diagnosis and to report cases.

During their fifth year students attend four amphitheatre clinics on four days of the week. Groups of cases are here put before them for comparison. They take part in the examination of patients, in the discussion of symptoms and are encouraged to make an independent diagnosis. They witness the operations performed and have every opportunity to learn technique. In these clinics special attention is given to the consideration of the natural history of the diseases under discussion, as well as the pathogenesis, complications, prognosis and therapeutic indications.

Students, during their fifth year, are expected to do independent work in the wards, studying the cases assigned to them, reading up their cases in the medical library and doing sufficient laboratory work to enable them to make their case reports complete.

The didactic lectures are given in the New Medical Building and are illustrated by a large collection of preparations from the Museum, by plates, diagrams, drawings, and, when available, by fresh specimens.

The didactic lectures deal with the principles of surgery, and rare and unusual diseases and injuries which may not be illustrated in the wards of the hospitals. They are intended to be, so far as possible, complementary to the clinical teaching. In these lectures the student is given a broad general view of surgery, so that he may the more easily and intelligently follow the clinical teaching in the hospitals and more fully appreciate the many problems presented at the bedside.

Practical instruction in the administration of anæsthetics is given to students of the fourth and fifth years in the hospitals, the didactic lectures and laboratory demonstrations being given in the College by the Department of Pharmacology and Therapeutics.

OBSTETRICS.

PROFESSOR OF OBSTETRICS AND GYNAECOLOGY:—W. W. CHIPMAN.
ASSOCIATE PROFESSOR:—D. J. EVANS.
ASSISTANT PROFESSOR:—H. M. LITTLE.
LECTURERS:—J. R. GOODALL. H. C. BURGESS. H. R. D. GRAY. J. W. DUNCAN.

This course will embrace: (1) Lectures on the principles and practice of the obstetric art, illustrated by diagrams, fresh and preserved specimens, the artificial pelvis, complete sets of models illustrating the deformities of the pelvis, wax preparations, bronze mechanical pelvis, etc.; (2) bedside instruction in the Montreal Maternity, including external palpation, pelvimetry, the management and after-treatment of cases; (3) a complete course on obstetric operations with the Tarnier-Budin phantom; (4) the diseases of infancy; (5) a course of individual clinical instruction at the Montreal Maternity Hospital.

The course is carefully graded and instruction will be given separately to students of the fourth and fifth years.

Particular attention is given to clinical instruction, and a clinical examination similar to that held in medicine and surgery forms an important part of the final examination.

A few lectures will be given on diseases of the new-born, supplemented by clinical demonstration and ward work. The lecturers and demonstrators will give special courses from time to time in the college and in the hospital, and will take the students in groups for the purpose of demonstration, examination and review.

The adoption of the five-year course necessitates some important changes in the methods and sequence of instruction.

In the fourth year will be given the regular course of didactic lectures.

The fifth year will be devoted mainly to practical and clinical work in the wards of the Montreal Maternity and in its externe service. Palpation on the living subject, theatre clinics, ward clinics, and individual instruction in the management of labor and the care of the puerperal patients will be the chief features of the course.

GYNÆCOLOGY.

PROFESSOR OF OBSTETRICS AND GYNAECOLOGY:—W. W. CHIPMAN.
ASSOCIATE PROFESSOR:—F. A. L. LOCKHART.
ASSISTANT PROFESSOR:—J. R. GOODALL.
LECTURERS:—DAVID PATRICK. H. M. LITTLE. H. C. BURGESS.

The didactic course consists of about twenty-five lectures given twice weekly during the autumn session. The anatomy and physiology of the organs and parts concerned are first discussed. Then the various methods of examination are fully described, the necessary instruments exhibited, and their uses explained.

The diseases peculiar to women are considered as fully as time permits, somewhat in the following order: Disorders of menstruation, leucorrhœa, diseases of the external genital organs; inflammations, lacerations and displacements of the uterus; the infections of the pelvic peritoneum and cellular tissue and the uterine appendages; benign and malignant growths of the uterus; tumours of the ovary; diseases of the bladder and urethra. The lectures are illustrated as fully as possible by drawings, morbid specimens and lantern slides.

Clinical teaching, including out-patient and bed-side instruction, is given at both the Royal Victoria and Montreal General Hospitals by Professors Chipman, Lockhart and Goodall, assisted by Drs. Patrick, Little and Burgess. A large amount of clinical material is thus available for practical instruction in this department of medicine. Numerous operations are done before the class and made the subject of remarks. In addition to the ward-patients, each hospital conducts a large out-patient gynæcological clinic, to which advanced students are admitted in rotation, and instructed in digital and bi-manual examination and in the use of instruments for diagnosis.

Particular attention is thus given to clinical instruction, and a clinical examination in gynæcology, similar to that held in medicine and surgery, forms part of the final examination.

OPHTHALMOLOGY.

PROFESSOR:—J. W. STIRLING.
LECTURERS:— W. G. M. BYERS. G. H. MATHEWSON.
DEMONSTRATORS:— F. T. TOOKE. S. H. MCKEE.
ASSISTANT DEMONSTRATOR:—J. MCMILLAN.

In the fourth year there will be a didactic course of about ten lectures delivered at the University. The more unusual diseases of the eye will be fully described, while the commoner diseases will merely be touched on, the fuller consideration of the latter being reserved for the clinical lectures to be delivered in the fifth year. In addition, in the fourth year there will be instruction in the anatomy of the eye, the methods of examination, and the use of the ophthalmoscope and refraction.

In the fifth year there will be a regular bi-weekly course of clinical lectures at the Royal Victoria and Montreal General Hospital, as well as a tutorial course in operations on the cadaver.

The operative work in eye surgery is fully open to undergraduates on the day set apart for the purpose.

OTO-LARYNGOLOGY.

PROFESSOR:—H. S. BIRKETT.
LECTURER IN RHINOLOGY AND LARYNGOLOGY:—H. D. HAMILTON.
LECTURER IN OTO-LARYNGOLOGY:—W. H. JAMIESON.
LECTURER IN RHINOLOGY AND LARYNGOLOGY:—R. H. CRAIG.
DEMONSTRATORS OF OTO-LARYNGOLOGY:— H. S. MUCKLESTON. HAMILTON WHITE. J. T. ROGERS.
ASSISTANT DEMONSTRATOR OF OTO-LARYNGOLOGY:—D. H. BALLON.

The course of instruction in oto-laryngology is carried on in the out-patients' department of both the Royal Victoria and the Montreal General Hospitals, where, owing to the large clinics, the students are afforded ample opportunity of receiving a thorough instruction in these subjects. The course is carried on in both the fourth and fifth years. In the fourth

year, in addition to a short course of didactic lectures, the students receive instruction in: (a) The normal anatomy of the ear, nose and throat, as exemplified in moist dissections, dried specimens, models, stereoscopic plates and radiograms of normal conditions of the accessory sinuses of the nose and mastoid process; (b) the method of using the various instruments for examining the ear, nose and throat; (c) the usual tests for hearing; (d) the recognition of normal conditions of these special organs, as exemplified by clinical material.

In the fifth year the students have presented to them only pathological conditions affecting these organs. As many cases as is possible are brought forward to illustrate the various diseases, and the clinical material thus presented is dealt with by a clinical lecture, and is further enlarged by gross pathological specimens, microscopical material and lantern slides. Eight to ten didactic lectures will also be given.

In this year the students will also receive instruction as to the care of the deaf mute, the subject being dealt with by a lecture and practical illustration of the methods of educating these unfortunate children in the Mackay Institution for Deaf Mutes.

The courses are conducted in small classes, so that personal supervision is accorded to each student. The clinics are held twice a week, and continued throughout each session. An examination at the end of the fourth year will be only clinical, but that at the end of the fifth year will be both written and clinical. A position as resident house-surgeon in the department of oto-laryngology in the Royal Victoria Hospital is open to the members of the graduating class.

MENTAL DISEASES.

PROFESSOR:—T. J. W. BURGESS.
DEMONSTRATOR:—C. A. PORTEOUS.

This course will comprise a series of lectures at the University on insanity in its various forms. The several types of mental diseases will be illustrated by cases in the Verdun Hospital, where clinical instruction will be given to groups of senior students at the close of the didactic lectures.

After clinical instruction each student is required to examine a number of cases of mental diseases for himself, making written reports thereon, and this is followed by a discussion in which the major points relative to such cases are explained.

A clinical as well as a written examination is held.

DERMATOLOGY.

PROFESSOR:—F. J. SHEPHERD.

LECTURERS:— { G. G. CAMPBELL. / W. P. BURNETT.

The course is entirely clinical, consisting of a weekly theatre clinic at the Montreal General Hospital, by Prof. Shepherd, on specially selected cases, and two outdoor clinics, weekly, by Drs. G. G. Campbell, at the Montreal General Hospital, and W. P. Burnett at the Royal Victoria Hospital, throughout the session. Lantern slides are made use of to illustrate the course; also a large series of coloured plates and photographs.

DOUBLE COURSES.

By special arrangement with the Faculty of Arts, it is now possible for students to obtain the double degree of B.A. and M.D., C.M., after seven years of study.

For the guidance of those students entering upon a double course who intend to practise in the Province of Quebec, it is necessary, under the regulation of the Quebec Licensing Board, that they matriculate and register with the aforesaid Board not later than the end of their second year in Arts.

Course Leading to B.A. and M.D.

Under a new arrangement recently made with the Faculty of Arts, the curriculum of the double course for the degree of B.A., M.D., has been considerably altered and improved.

Under this arrangement, the double course student will spend the first two years in the Faculty of Arts, and the

remaining five in the Faculty of Medicine. The curriculum of the first two years is as follows:—

First Year.

English.
History.
Mathematics.
Latin or Greek.
Any two additional languages.

Second Year.

English Composition.
Latin.
Any three of the remaining subjects (see page 87), chemistry and biology excepted.

To secure privileges connected with the double course described above, certificates of registration in the Medical Faculty must be presented at the beginning of each year to the Dean of the Faculty of Arts, and at the end of the second year certificates of attendance on lectures and of having passed the necessary examinations in the Faculty of Arts must be presented to the Registrar of the Medical Faculty. At the end of the fourth year certificates must be presented to show that the full curriculum of the Medical Faculty for the first and second years has been completed.

The Faculty of Medicine strongly recommends students to take an Arts course before beginning Medicine, whenever possible, devoting special attention to chemistry, biology, physics, and German. Should a student have but one year at his disposal, he is advised to take chemistry, biology and physics of the Faculty of Arts as a preliminary training for Medicine.

Course Leading to B.Sc. (Arts) and M.D.

This course is designed to give a scientific rather than a literary training as a preliminary for Medicine. After four years of scientific work a student will have completed all the subjects of the first two years in Medicine, and will enter the

third year of the medical course with a more thorough training in the scientific foundations of medicine than can be acquired by the regular medical student. Any student taking this course should have fulfilled the requirements for entrance to the Faculty of Medicine.

For particulars of the work in this course, see page 95.

GRADUATE AND ADVANCED COURSES.

The Faculty of Medicine, in 1896, established post-graduate and special courses. Recently these courses have been made almost entirely clinical in character and have been given in the Montreal General, the Royal Victoria and the Montreal Maternity hospitals. Owing to the departure of many of its post-graduate teachers for service in the war, the Faculty is compelled to omit the regular course for this year.

Arrangements have been made to accommodate a limited number of such graduates who desire advanced and research work.

Commodious laboratories for advanced work have been equipped in connection with the Pathological and Clinical Departments of both the Royal Victoria and Montreal General Hospitals, and in connection with the college laboratories for physiology, chemistry, pathology and pharmacology.

Recent graduates of recognized universities desiring to qualify for examinations by advanced laboratory courses, or who wish to engage in special research, may enter at any time by giving notice, stating the course desired and the time at their disposal.

All the regular clinics and demonstrations of both hospitals will be open to such students on the same conditions as to undergraduates in Medicine of this University.

Further details regarding courses, fees, etc., may be obtained on application to the Registrar of the Medical Faculty.

SPECIAL COURSES IN HYGIENE.

In the session of 1899-1900 the Faculty instituted a post-graduate course in Public Health and Sanitary Science, and

since that time other courses, as described below, have been instituted.

Special instruction is given in this department, leading to the Diploma of Public Health; also for engineers, architects, and those wishing to include this subject in their final examination for the degree of Doctor of Philosophy (Ph.D.).

(1) Diploma Course in Public Health.

Candidates undertaking this course must have possessed a degree in Medicine, or other qualification for practice, for at least twelve months before he is competent to receive the diploma. The courses prescribed are as follows:—

1. A course of lectures in public health (to be omitted in the case of candidates who have attended such a course before graduation).

2. A six months' course in bacteriology, special attention being directed to the pathogenic organisms and parasites—such course to be omitted on presentation of proof that it has previously been taken.

3. A six months' course of practical study of out-door sanitary work under a medical officer of health (to be omitted in the case of medical health officers holding appointments which offer facilities for studying general out-door sanitary work).

4. Three months' attendance and clinical instruction at a hospital for infectious diseases (unless such course has already been taken prior to graduation).

5. Six months' instruction in sanitary chemistry and physics, with practical work in a chemical laboratory.

The examination for the diploma will cover the following subjects:—Examination of clinical cases at an infectious hospital; the drawing up of outlines for annual and other reports of officers of health; a report upon the sanitary condition of some actual locality; the chemical analysis of liquids and gases and of specimens of food; demonstration of the

consideration and use of meteorological, hygienic and sanitary apparatus; microscopical examination of specimens submitted; description of specimens of human and other diseased tissues; practical examination in the employment of the usual bacteriological methods; the inspection of carcasses of animals to be used for food.

The above examination shall be written, oral and practical, and shall extend over a period of four or five days.

The following is a list of subjects included in the curriculum of study:—

(*a*) *Sanitary Chemistry*:—Examination of air, gases, water, the action of water on metals, milk, food and beverages; detection of poisons in articles of dress and of decoration; the chemistry of sewage.

(*b*) *Sanitary Physics*:—Principles of statics, pneumatics, hydraulics, light and photometry, heat and thermometry, the principles of hygrometry (only in their application to hygiene).

(*c*) *Sanitary Legislation*:—Statutes and by-laws relating to public health; the powers of public sanitary authorities.

(*d*) *Bacteriology and Parasitology*:—Modes of propagation of disease and transmission of disease between man and man, and man and animal; bacteriological analysis in relation to public health matters; natural history of microbes and animal parasites.

(*e*) *Vital Statistics*:—Calculation and tabulation of returns of births, marriages, deaths, and diseases.

(*f*) *Meteorology and Climatology*, including the geographical and topographical distribution of disease.

(*g*) *Preventive Medicine and Practical Sanitation.*

Except in special instances where exemptions may have been granted the length of the course is eight months—from the beginning of October to the end of May.

The fee for the diploma will be $50.00.

(2) Course for Civil Engineering.

This course is given to meet the requirements of engineers, particularly those making a specialty of sanitary engineering.

The object of the instruction is to elucidate the public health principles involved in engineering problems, *e.g.*, ventilation, water supplies, sewage disposal, and drainage systems.

(3) Course for Architects.

Special instruction is given in those branches of public health relating to architectural work, *e.g.*, lighting and heating, ventilation, sanitary fixtures, draining and plumbing.

(4) Course for the Degree of Doctor of Philosophy (Ph.D.)

Hygiene, or some particular branch of it, may be taken out as a minor subject in the final examination for the Ph.D. degree. Special arrangements are made to suit the student in order that the work done in this department shall be a supplement to his major subject taken out in Applied Science.

(5) Course for Promotion in the Army Medical Corps.

As hygiene forms one of the compulsory subjects in the examination for promotion in the Permanent Army Medical Corps, special classes are held for the purpose of giving instruction in this subject—particular attention being paid to military hygiene.

The attendance in this class counts towards the requirements for the Diploma of Public Health.

Courses (2) and (3) can be commenced at any time during the session, and usually are of about three months' duration.

A small fee will be charged for each of the courses (2), (3), (4) and (5).

CLINICAL INSTRUCTION.

During the fourth year two medical and two surgical theatre clinics are given weekly in the Montreal General and Royal Victoria Hospitals. Out-patient clinics are given to groups of students twice weekly in gynæcology and once weekly in ophthalmology and oto-laryngology. In addition, on four days of the week instruction is given to groups at the bedside, in the laboratories, and in the medical and surgical out-patient departments.

In the Alexandra Hospital for Contagious Diseases, students of the fourth and fifth years receive bedside instruction in groups.

The fifth year is devoted almost exclusively to clinical work. There are three clinics weekly in medicine, three in surgery, two in obstetrics and two in gynæcology, these being supplemented by group teaching in the wards and by instruction in the clinical laboratories. In addition, groups receive instruction in ophthalmology, oto-laryngology, pedriatrics, dermatology, gynæcology, neurology and genito-urinary surgery in the out-patient departments of both hospitals. At the Montreal Maternity four ward classes weekly in obstetrics are given.

Clinical Clerks in the medical and surgical wards of both hospitals are appointed every three months, and each one during his term of service conducts, under the immediate direction of the Clinical Professors, the reporting of all cases in the ward allotted to him. Students are required to show a certificate of having acted for six months as clinical clerk in medicine and six months in surgery, and are required to have reported at least ten cases in medicine and ten in surgery. The instruction obtained as clinical clerk is found to be of the greatest possible advantage to students, as affording a true *practical* training for his future professional life.

Dressers are also appointed to the out-door departments. For these appointments, application is to be made to the assistant surgeons, or to the resident surgeon in charge of the out-door department.

The large number of patients affected with diseases of the eye and of the ear, nose and throat, now attending the special clinics at both hospitals, afford ample opportunity to students to become familiar with all the ordinary affections of those organs, and to make themselves proficient in the use of the various instruments used in examining them, and it is hoped that every student will thus seek to gain a practical knowledge of these important branches of medicine and surgery. Operations are performed on the eye and on the ear and nose and throat after the out-door patients have been seen, and students are invited to attend the same, and as far as practicable to keep such cases under observation so long as they remain in the hospital.

There are also special departments in both hospitals for gynæcology, pediatrics, neurology, orthopædics, dermatology and genito-urinary diseases, directed by specialists in these branches. Students are thus enabled to acquire special technical knowledge under skilled direction. The plan of teaching practical gynæcology, which has met with marked success, has been the limitation of the number of students attending each clinic to three.

Clinical instruction is given in the wards of the Protestant Hospital for the Insane at Verdun.

The clinical teaching in infectious diseases is given in the wards of the new Alexandra Hospital for Contagious Diseases.

HOSPITALS.

The City of Montreal is celebrated for the number and importance of its public charities. Among these its public hospitals are the most prominent and widely known. Those in which medical students of McGill University receive clinical instruction are: (1) The Montreal General Hospital; (2) The Royal Victoria Hospital; (3) The Montreal Maternity Hospital; (4) The Alexandra Hospital for Contagious Diseases; (5) The Protestant Hospital for the Insane.

Montreal General Hospital.

This hospital, which for many years has been the most extensive clinical field in Canada, consists of a medical, surgical, dental and pathological department. The medical part of the hospital has been replaced by an entirely new building, ten stories in height.

The surgical side comprises two pavilions, containing four wards, and can accommodate over 120 patients. In an intervening building are situated an amphitheatre capable of seating over 350, the operating rooms, the sterilizing rooms, and the other usual accessories to a surgical department. The new building has increased by three the number of operating rooms and has greatly amplified the present accommodation. It also contains a fully-equipped X-ray department.

In this new building, which is designed to replace the present medical wards, there are three large wards of twenty-eight beds each, for the care of medical cases solely. In addition, there are smaller wards for nervous, orthopædic, gynæcological, ophthalmological and genito-urinary cases, besides supernumerary rooms available for demonstrations and other teaching purposes. The standard accommodation for patients is now 349, which may be increased by 50 in case of emergency.

The new portion to the hospital further provides a large students' room, to which are attached a lunch room and a lavatory.

In the raised basement is situated the Out-patient Department, of a size to meet the present needs of the hospital—over 100,000 visits a year. Besides the usual medical, surgical and special sense clinics, there is a large demonstration room, primarily meant for skin diseases, an amphitheatre, and a students' clinical laboratory.

The recently completed pathological department is on the hospital grounds; it is a three-storey building with a mezzanine floor and a basement, and is entirely given over to laboratory work. The department is in charge of a director who, with his staff, devotes his entire time to the work in the laboratory.

All the equipment needed for examination of the pathological material obtained from the wards and the out-patient department of the hospital is provided, and special rooms are set apart for bacteriological examinations, the preparation of vaccines, serum diagnosis, surgical pathology and post-mortem examinations. The large amount of pathological material obtained from the sources above indicated is made full use of by the staff of the hospital in their clinics and by the director of the department in his demonstrations held in the laboratory.

In a room set apart and equipped especially for them, the students, under the guidance of a member of the staff, may examine specimens of all kinds in connection with the cases assigned to them in the wards.

This department offers every opportunity to students, graduate or undergraduate, who are desirous of doing advanced work.

The Royal Victoria Hospital.

This hospital is situated a short distance above the University grounds, on the side of the Mountain, and overlooks the city. It was founded in July, 1887, by the munificence of Lord Mount Stephen and Lord Strathcona, who gave one million dollars for this purpose.

The buildings, which were opened for the reception of patients on the first of January, 1894, were designed by Mr. Saxon Snell, of London, England, to accommodate between 300 and 350 patients.

The hospital is composed of five main buildings, connected together by stone bridges; an administration block in the centre and a wing on the east side for medical patients, in immediate connection with which is the pathological wing and mortuary, and a wing on the west side for surgical patients with nurses' home attached.

The administration block contains ample accommodation for the resident medical staff and domestics. In this building there are private wards, the X-ray and hydro-therapeutic departments as well as the diet kitchen. To the north of the

administration block has been erected the large out-patients' department. The patients' entrance, the dispensary and admission rooms are also situated in this building. This wing was opened for patients during the winter of 1899-1900.

The medical wing contains five large wards, besides private and isolation wards, and wards for oto-laryngology and ophthalmology. There is also a medical theatre with a seating capacity of 250, and three rooms adjacent to it for clinical chemistry and other purposes. North of this wing and in direct connection with it are the pathological laboratories and mortuary.

In this wing are situated the mortuary proper, the chapel, a post-mortem room capable of accommodating 200 students, and laboratories for the microscopic and bacteriological study of morbid tissues, some designed for the use of students and others for post-graduation courses and special research. Special laboratories for pathological chemistry, experimental pathology, bacteriology and photography are also provided.

The surgical wing contains five large wards, and several private wards; also two surgical theatres with a seating capacity for 250, with six rooms adjacent for preparation of patients.

The Montreal Maternity.

The Corporation of The Montreal Maternity has erected a large, new building, fitted with the most modern appliances, situated at the corner of Prince Arthur and St. Urbain streets. Students will, therefore, have greatly increased facilities for obtaining a practical knowledge of obstetrics and diseases of infancy.

The institution is under the direct supervision of the Professor of Obstetrics. Much time and attention are devoted to individual instruction. Every facility is afforded for acquiring a practical knowledge of the various obstetric manipulations. Students who have attended the course in obstetrics during the winter and spring terms of the fourth year will be furnished with cases in rotation, which they will be required to report and attend until convalescent.

An externe service in connection with the Maternity has been established, one of the resident assistants and a nurse being sent out to attend deserving cases in their own homes.

Students are required to attend at twenty cases in the Hospital, and in the externe service are given the management, under supervision, of three complete cases.

Clinical obstetrics has been placed upon the same basis as clinical medicine and surgery, and a final clinical examination has been instituted. Every student must give in two complete clinical reports on cases observed by him before presenting himself for the final clinical examination. Marks are given for these reports in the final examination for degree. Regular courses of clinical lectures are given throughout the session, special attention being paid to the important subject of infant feeding.

The Walker-Gordon process of modifying milk is explained and demonstrated.

During the session the several teachers in the Department give a palpation course, clinical demonstrations in the wards, and instruction in operation work on the phantom.

Students will find it very much to their advantage to pay special attention to their clinical work during the summer preceding their fifth year.

Three resident medical officers are appointed yearly to assist the Medical Superintendent, and to work under his direction.

Alexandra Hospital.

The Alexandra Hospital for the treatment of contagious diseases is available for purposes of clinical instruction. This hospital, situated on Charron street, Point St. Charles, has a capacity of over 130 beds. There are three large individual pavilions, an observation pavilion, an isolation ward, a central kitchen, an independent nurses' home and an independent administration building, which contains a very complete laboratory and a dispensary. It is the intention of the Governors of the Hospital to erect a fourth pavilion for the treatment of erysipelas. For the present the three most prevalent con-

tagious diseases, measles, diphtheria, and scarlatina, are treated, and ample provision has been made for the accommodation and instruction of students. Besides, clinics to groups of students of the fourth and fifth years are given throughout the session. From twelve to fifteen hundred cases are treated annually.

MUSEUMS.

The Faculty has during recent years devoted special attention to the development of its museums in the several departments in which objective teaching is of especial value in the education of the student.

For descriptions of the several museums in this Faculty, see pages 387 to 389.

LIBRARY.

HONARARY LIBRARIAN:—Dr. C. F. WYLDE.
ASSISTANT LIBRARIAN:—Miss JEAN CAMERON.
SECOND ASSISTANT LIBRARIAN:—Miss ISOBEL ROSS.

"The history of the Library is the history of the Faculty."
—Professor Hall

The Library occupies the central part of the new building, the whole front of the second and third floors, as well as a portion of the first floor. On the third floor is the magnificent reading room, 76 x 24 feet, exceptionally well lighted, and capable of accommodating 75 readers. On this floor also is the journal room and the private offices. The second floor contains the stack room, the book stacks having a total capacity of sixty thousand volumes.

DENTAL DEPARTMENT

OF THE MEDICAL FACULTY.

GENERAL ANNOUNCEMENT.

In the autumn of 1903 the Dental Association of the Province of Quebec approached the University, asking that a dental department be instituted in connection with the Medical Faculty, and, as a result of negotiations continuing through the session of 1903-04, the University has established such a department. This department is not independent, but is a section of the Medical Faculty.

Under the regulations that have been established governing the Dental Department, students may register in dentistry after passing the matriculation required of students of medicine in McGill University; but those wishing to practise in the Province of Quebec, except those who hold a degree in Arts from a recognized British or Canadian university, must pass the matriculation examination of the College of Dental Surgeons of the Province of Quebec.

The course demanded of students in this department extends over four years and leads up to the degree of D.D.S. In the first year the curriculum is that demanded of students in the Medical Faculty for the same period with the addition of short courses in dental histology and dental anatomy. In the second year, students of dentistry finish their course in anatomy at Christmas; the course in chemistry is not so extensive as for the medical student, and special lectures are given in physiology, pharmacology and histology. Pharmacy, as in the medical course. There are also courses in operative dental technique, prosthetic technique and dental anatomy for second-year students. The practical work of the last two years is conducted in the laboratories of the Dental Department in the College and in the dental clinic of the Montreal General Hospital. Special courses of lectures are delivered at the McGill Medical College.

CLINICAL INSTRUCTIONS.

The establishment of an out-patient clinic in dentistry by the authorities of the Montreal General Hospital has enabled the University to offer its students an abundance of clinical material. During the third and fourth years the greater part of the student's time is spent in the clinic, where he receives the personal attention of a competent staff of instructors.

Requirements for the Degree.

The degree of Doctor of Dental Science (D.D.Sc.) will be conferred by McGill University on any student who has fulfilled the following requirements:—

1. He must be of the full age of 21 years.
2. He must be of good moral character.
3. He must have passed all required examinations.
4. He must have completed the full term of four years.
5. He must have paid all fees.

For full particulars of the Dental Department, consult the special catalogue of the Department, a copy of which will be sent on application to Dr. J. W. Scane, Registrar Medical Faculty.

DEPARTMENT OF MUSIC.

LOCAL EXAMINATIONS.

Public local examinations are now held yearly at various centres throughout the Dominion by examiners sent out by the University.

These examinations may be looked upon as preparatory to the examinations for diplomas and degrees in Music granted by the University. There are in most of the subjects five grades, and certificates gained in the higher grades will exempt the candidate from certain portions of the examinations for a diploma or degree.

DIPLOMA OF LICENTIATE IN MUSIC.

Candidates for this diploma may elect to be examined in one of the following:—

Theoretical subjects and composition.....(Class I)
Practical subjects as performers.....(Class II)
Both theory and practice as teachers.....(Class III)

The candidate must pass three examinations.

First Examination:—

(a) Rudiments of music, including sight reading and ear tests.

(b) Harmony in four parts up to, and including, dominant 9th. (A practical test will be substituted for performers.)

(c) Counterpoint in two parts. (Practical test substituted for performers.)

(d) Chief subject of study.

The possession of a Grade I certificate of the local theoretical examinations will exempt candidates in class I from this examination. In class II, exemption may be claimed if the candidate has passed Grade I (practical) and Grade II or Grade III (theoretical) of the local examinations.

In class III, candidates must hold Grade I (theoretical) and Grade I (practical) certificates in order to claim exemption.

In the *Second and Third examinations*, between which a year must elapse, the requirements for classes I and III are, on general lines, similar to those for the first and second Mus. Bac. examinations respectively. In the case of class II, practical tests are substituted for many of the theoretical tests. Candidates in class III will, in the final examination, have to pass in "The Art of Teaching Music," which will be partly *viva voce* and partly paper work.

In both the Licentiate and Mus. Bac. examinations, considerable latitude is allowed in the choice of a second practical study. Total exemption from examination in it will be allowed if the candidate possesses recent certificates gained in the higher grades of the local examinations in that subject.

Those holding the diploma of L. Mus. can at any time during the five years immediately following their passing that examination enter for the Mus. Bac. final examination, but they must pass the Matriculation examination.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MUSIC.

Candidates for the degree must have passed the following examinations:—

1. The Matriculation Examination. (See page 26.)
2. The First Examination in Music, at the end of the first year.
3. The Second Examination in Music, at the end of the second year.
4. The Final Examination.

The particulars of the work for each of the above examinations are as follows:—

First Examination in Music:—

(a) Advanced rudiments.
(b) Harmony in 3 and 4 parts.
(c) Counterpoint up to 3 parts.
(d) Form and analysis. Questions will be given on accent, cadence, metre, rhythm, phrasing, etc., and on form, shown in the work of the early classicists (Scarlatti, Bach, Mozart and Haydn).

(e) General outlines of musical history.
(f) Chief and second practical study (or instead of one of these the composition of a song (or songs) or a miniature suite for piano (or violin and piano or any other combination).

Second Examination in Music:—

(a) Harmony in not more than 4 parts.
(b) Counterpoint in not more than 4 parts.
(c) Canon in 2 parts and fugal exposition up to 4 parts.
(d) History of music from the 16th century to the present day, with some critical knowledge of a few compositions, either studied during the year or prescribed beforehand.
(e) Form and analysis.
(f) Elementary knowledge of acoustics, or physiology of voice.
(g) Chief and second practical study or, instead of one of these, the composition of:—(1) A movement in sonata form for pianoforte (or piano and violin, or any other combination), or (2) chorus with independent accompaniment, or (3) suite for strings.

Final Examination in Music:—

(a) Harmony up to 5 parts.
(b) Counterpoint up to 5 parts.
(c) Double counterpoint in 8ve, 10th, and 12th.
(d) Canon and fugue in 4 parts.
(e) History of music from the earliest to the present time.
(f) Form and analysis. A knowledge will be required of such works as the following:—Bach's 48 Preludes and Fugues, Beethoven's Sonatas, Schubert, Schumann and Brahms' Songs, Mendelssohn's Psalms and such Oratorios as Elijah and St. Paul. (The candidate should send in a list of works, in which he or she is prepared to be examined, a few weeks before the day of examination.)

(g) Instrumentation—a knowledge of the compass and capabilities of all instruments in the modern orchestra, and the scoring of a given passage in a given time, also the reading at sight of a short excerpt from an easy score of an early work of Mozart or Beethoven.

(h) Chief and second practical study (or in lieu of both of these a composition can be sent in by the candidate containing 4-part chorus, a solo or duet, an unaccompanied quartette and a 4-part fugue—the whole scored for stringed instruments with independent accompaniment).

Graduates in Music of other universities can be admitted to an *ad eundem* degree in Music of this University on payment of the necessary fees, if they are intending to proceed to the McGill degree of Mus. Doc.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MUSIC.

Bachelors of Music of McGill University, after the lapse of a period of three years from the time of taking the degree of Bachelor of Music, may proceed to the degree of Doctor of Music, the requirement for which is a composition in extended form, such as an oratorio, opera or cantata. This exercise must have as its first number an introductory orchestral movement in the usual concert-overture form, and must contain eight-part writing and fugal treatment. It must be scored for a full orchestra. This original and unaided composition, if approved of, may be publicly performed by the candidate in the University or some other fit and proper place, at the discretion of the University. In addition, an examination in the higher forms of composition shall be necessary, together with a critical knowledge of the full scores of certain prescribed works.

Further particulars with regard to degrees and diplomas in Music, as well as those relating to local examinations, not included in the above, will be found in the special Music Syllabus obtainable on application to the secretary of the McGill University Conservatorium of Music.

DEPARTMENT OF PHYSICAL EDUCATION.

FOR MEN.

Medical Director of Physical Education:—F. W. Harvey, B.A., M.D.

Instructor:—Arthur Stanley Lamb, B.P.E.

Gymnastic classes are held throughout the session. These classes are open to men students of all faculties. The work consists of graded educational exercises, with and without apparatus; gymnastic games, basket ball and dancing. While the exercises are largely of a recreative nature, the main purpose is to promote organic vigour, normal development and general physical efficiency.

Special attention is given to the application of exercise in cases of weakness or deformity.

The Wicksteed silver and bronze medals for physical culture (the gift of the late Dr. R. J. Wicksteed) are offered for competition to students of the graduating class and to students who have had instruction in the gymnasium for two sessions; the silver medal to the former, the bronze medal to the latter.

The award of these medals is made by judges appointed by the Corporation of the University.

Every competitor for the silver medal is required to lodge with the judges, before the examination, a certificate of good standing in the graduating class, signed by the Dean or Registrar of the Faculty to which he belongs, and the medal will not be awarded to any student who may fail in his examination for the degree.

All students on entering the University are required to pass a physical examination (see page 43). By such an examination any physical defect or weakness may be discovered early, and the student will be advised with regard to treatment. For those defects amenable to treatment by exercise or other hygienic measures, individual attention will be given and students will be advised as to what forms of exercise will be likely to prove beneficial or harmful. Lectures on personal hygiene will be given to first year students.

FOR WOMEN.

Medical Director of Physical Education:—F. W. Harvey, B.A., M.D.

Physical Director:—Miss E. M. Cartwright, Graduate and former Assistant of the Chelsea College of Physical Education, London, England.

Classes in educational gymnastics are conducted for all undergraduate students in the gymnasium of the Royal Victoria College (see page 362). All students on entering the University are required to pass a physical examination (see regulation on page 43) and are also required to pass satisfactory physical tests before taking part in any of the outdoor or indoor physical exercises organised by the Physical Department, whether educational, remedial or recreational.

Undergraduate students of the first and second years are required to attend two educational gymnastic classes per week. Undergraduate students of the third year are required to attend one educational gymnastic class per week.* Undergraduate students of the fourth year wishing to enter educational gymnastic classes are expected to attend regularly. Undergraduate students entering the Royal Victoria College in their third or fourth year are required to attend the educational gymnastic classes twice a week, for one session, unless excused for reasons deemed sufficient by the Department.

Work in the Physical Education Department throughout the four-year course (amounting to 140 hours in all) is required of all undergraduate students. These periods will be used for instruction in personal hygiene and for educational, remedial and recreative gymnastics, according to the physical requirements of the individual. No student will be asked to do work unsuited to her physique, and students debarred from exercise of any kind will be dealt with separately and carefully advised.

---

* In all cases of absence the student is required to report to the Physical Director. The ordinary interpretation of the one-eighth rule concerning absences does not apply in this Department. Every student is required to wear the costume recommended by the Department.

Reports of attendance in physical education will be regularly sent to Faculty.

Strathcona Prizes.—Three first prizes of $8, $10, and $12, and three second prizes of $5, $6, $9, are open to students for competition in the second, third and fourth years respectively. Two prizes of $5 are offered for competition to the students of the first year; one for students who have taken part in educational gymnastics at school, and the other for students who have had no previous physical training.

All competitions will be held under the following regulations:—

1. Competitors will be awarded 50 per cent. of the marks on the work of the session.

2. No prize shall be awarded unless the judges consider the work up to a standard of 75 per cent.

3. The prizes shall not be awarded in the second, third and fourth years should the winner fail to obtain her full academic standing. The prizes in the first year shall not be awarded if the winners fail in more than one subject at the sessional examinations.

4. Competitors will be judged on the work taught in the Physical Education Department during the session, the Physical Director arranging all details concerning the competition. A programme of the competitions will be posted not later than March 1st.

5. Judges for these competitions shall be appointed yearly by the Corporation, on the recommendation of the Department.

The departments of Education and Physical Education offer the following course:—

FOR UNDERGRADUATES OF THE FOURTH YEAR (men and women). [See page 140.]

A course of 20 lessons of 1½ hours each on the principles and practice of physical education. The course will cover elementary anatomy, physiology and hygiene, the theory of gymnastics and class teaching.

Students will be required to give four lessons (practical) to children, in the presence of the physical director, and to take an examination. Miss Cartwright, Dr. Harvey, Mr. Lamb.

Students who satisfactorily complete this course are entitled to certificate " B " of the Strathcona Trust, and their work is included in the requirements for the First Class Academy Diploma of the Province of Quebec.

McGILL SCHOOL OF PHYSICAL EDUCATION.

This school was founded under the Teachers' Training Committee in June, 1912, to train teachers of physical education.

Executive Committee:—Prof. Dale, Dr. Harvey; Miss Cartwright, secretary.

1. General Course.

The following course is given, which leads to a diploma on successful completion of three sessions' work, whether taken in summer or in winter.

The course is intended (1) to train teachers of Physical Education for public school work, recreational and social work; (2) to give teachers already at work the opportunity of obtaining extra qualifications. Students, therefore, who desire a partial course only may take separate subjects if the Medical and Physical Directors approve.

Practice in Teaching. Great stress will be laid on the practice of teaching. Owing to exceptional facilities, every student will be given the opportunity to conduct classes, games and dances, with helpful supervision from expert teachers.

Entrance Requirements. It is highly desirable that the teachers of Physical Education shall have reached a good standard of general culture, hence the following will be required for entrance to the course:—High School Leaving Certificate, or Matriculation, or the Model Diploma of the Province of Quebec, or equivalent qualification, at the discretion of the Committee.

Medical Examination. All students will be required to pass a satisfactory physical examination before proceeding with the course.

Diploma. Full courses will be given in the first, second and third years, providing the number of applications is sufficient.

The work of the successive years in each subject will be arranged progressively.

Examinations will be held in all regular subjects and certificates will be granted at the end of each year for work done. Forty per cent. required for pass; 60 per cent. for second class; 75 per cent for first class; but in all cases at least 60 per cent. must be made on teaching. The Diploma, granted on successful completion of the third year, is recognized by the Protestant Board of School Commissioners of Montreal as qualifying for the salary of specialist in the public schools. Credit towards a full session's work will be given to all attending a partial course on passing the examination. Students taking the full course, but failing to gain the certificates, will be credited with the subjects in which they pass.

2. Remedial Course.

A special course for training in massage and remedial gymnastics, consisting of two sessions' work. A complete course in theory and practice is given by a staff of specialists, in the Royal Victoria College and the Montreal General Hospital, and a diploma is awarded.

SUBJECTS.

First Year.

Anatomy
Physiology and histology
Hygiene
Theory of movement
* Theory and practice of Massage
Gymnastics
First aid (course 1)
* Remedial gymnastics

Second Year.

Anatomy
Physiology
Anthropometry
Physiology of exercise
Physical diagnosis
* Remedial gymnastics
* Theory and practice of massage
First aid (course 2)

All subjects except those marked with an asterisk will be taken in the School of Physical Education.

3. Playground Course.

The general course includes the chief requirements of playground supervision and direction, for which all graduates of the school are qualified. A short course is offered to train assistants in playground work, in view of the increased demand for qualified assistance.

SUBJECTS.

First Year.

- Anatomy
- Physiology and Histology
- Hygiene
- First Aid
- Theory of movement
- Educational gymnastics
- Folk dancing
- Games and athletics
- Class management and teaching

Second Year.

- Applied anatomy
- Physiology
- Public hygiene
- Anthropometry
- Theory of movement
- Psychology of play and playground equipment
- Educational gymnastics
- Folk dancing
- Games and Athletics
- Class management and teaching

Third Year.

- Applied anatomy
- Physiology of exercise
- Physical diagnosis
- Theory of movement
- Remedial gymnastics
- Educational psychology
- History of physical education
- Heredity and evolution
- Educational gymnastics
- Dancing

Staff—Misses Cartwright and Clark, Professor Dale, Drs. Harvey and Jones, Messrs. A. S. Lamb and C. B. Powter, Miss Roberts, Professor Simpson, Dr. F. J. Tees, Miss Asplet, Carl Gleissner, Mrs. Cam, Miss Seeley.

For names of general committee see under Committees, first part of Calendar.

For full particulars of all courses see syllabus, to be obtained from the Registrar.

MILITARY TRAINING.

COURSE IN MILITARY SCIENCE.

McGill University offers a course in military science which may be taken by undergraduates in Arts, Applied Science or Law.

The subjects covered by the complete course and the marks allotted thereto are as follows:—

		Lectures.	Demonstrations.	Marks.
Group A.—1.	Military History and Strategy (2 papers)	24	..	1,000
2.	Tactics (2 papers).....	24	..	1,500
Group B.—3.	Field Engineering (2 papers)	24	6	1,000
4.	Map Reading and Field Sketching (1 paper and a practical test)	12	6	500
Group C.—5.	Military Administration and Organization (1 paper).....	12	..	250

Note.—"Marks" assigned above refer to the War Office schedule.

The syllabus to be followed in these subjects will be that laid down in the "Regulations under which Commissions in the Regular Army may be obtained by University Candidates, 1912," but it may not be possible to give all three groups of subjects in any one year.

A candidate who so desires may take up the written examination in three parts, and, for this reason, the subjects are divided into three groups, as shown above. The examinations may be taken at any time before graduation.

Examinations will be held twice yearly, at dates which will be duly announced and bulletined by the Registrar.

Candidates wishing to take any of the examinations will inform the Registrar, in writing, by the 15th December for a spring examination and by 15th June for an autumn examination.

In the Faculty of Arts the subject of Military History and Strategy with any other subject in group A or B is counted as a half-course in the third or fourth year. In the Faculty of Applied Science an alternative is allowed in the fourth year between groups B and C and certain selected subjects in the several courses (see pp. 177 to 191). Students in the Faculty of Applied Science are advised to attend the lectures in this course. Marks in the Faculty schedule have been assigned on the same basis as that adopted for the obligatory subjects for a degree and the marks obtained by a student will be taken into consideration in determining his standing at the close of the session, as is done in the case of other alternative subjects.

Conditions of qualification.—To qualify, a candidate must obtain 40 per cent. in each paper of groups A and B, and 50 per cent. in the aggregate of marks allotted to each group (A, B and C). Where, however, the three groups are taken together at one examination, a candidate may be considered to have qualified if he obtains 40 per cent. in each paper and 50 per cent. of the aggregate marks allotted to the whole examination.

A candidate who fails in one paper only of a group, but who obtains 50 per cent. in the aggregate of the remaining papers of the group, will be re-examined in that paper only. When that paper is taken on re-examination, a candidate will, to complete his qualification in the group, be required to obtain 50 per cent. in that paper. Such a paper must be taken up with any remaining group, paper, or papers, in which the candidate has yet to qualify.

A candidate who fails in more than one paper of a group, or in the aggregate of a group, will be re-examined in the whole of that group.

A student obtaining 50 per cent. in group B-3, Field Engineering, will be considered to have qualified in sub-head (d) "Field Engineering" as required for qualification for the rank of Lieutenant in the Canadian Engineers of the Active Militia, and, should he join the Canadian Engineers as a Lieutenant, he will not be required to qualify again in that one sub-head.

CANADIAN OFFICERS' TRAINING CORPS.

(McGill University Contingent.)

In order to provide undergraduates with practical military training, a contingent of the Canadian Officers' Training Corps has been organized at McGill University. Students are thus afforded an opportunity for preparing themselves for service as officers in the Canadian Militia. The contingent is a unit of the active militia, being governed by special regulations, under which it cannot be called out for active service as a unit.

The training is intended to bring the largest possible number of students up to the standard required for two certificates (A and B) of proficiency. The value of these certificates lies in their being a guarantee of consecutive training for two or more years, of a nature calculated to produce good officers. If a member, who is in possession of a certificate, is recommended for a commission in the Active Militia, this certificate entitles him to rank as an officer without any further qualification and also to certain other advantages.

To obtain a Certificate (A or B) a member must complete two years *efficient* service in the corps, and pass the written and oral examinations prescribed for the respective certificates. To be efficient in a given year (1st August to 31st July), a member must have attended 40 parades if in his first year of service, or 25 parades if in a subsequent year, and must have completed the prescribed course of musketry. The time required is about two hours per week each session; the hours being from 5 to 6 p.m. on Wednesdays and Fridays.

Each member, upon joining the contingent, will be required to deposit the sum of $5.00 with the Adjutant; for which a receipt will be given. This money will be refunded if the member becomes efficient; otherwise, it will go into the funds of the contingent.

The training in the corps is of such a nature that all students are recommended to join. Enlistment is, however, purely voluntary.

COMMISSIONS IN THE REGULAR ARMY.

Commissions in the British regular army are offered each half-year to duly qualified candidates nominated by the University. Students may also qualify for a commission in the Canadian Permanent Force.

All information and conditions are contained in a pamphlet entitled " Regulations under which Commissions in the Regular Army may be obtained by University Candidates, 1912," but these conditions may be modified to a certain extent during the war.

The names of fully qualified candidates desirous of being nominated for a commission will be sent in to the Registrar by the 15th December or the 15th June in each year.

The qualifications required for a commission, in accordance with the Regulations, " 1912," are as follows: —

A candidate must:—

(i) Be nominated by a board appointed for that purpose.

(ii) Be between the ages of 21 and 25 on the 15th January, for a winter nomination, or the 15th July for a summer nomination.

(iii) Be unmarried.

(iv) Be passed by a medical board as medically fit.

(v) Be, in the opinion of the Army Council, in all respects suitable to hold a commission in the Regular Army.

(vi) Obtain a certificate of good conduct from a competent authority of the University.

(vii) Attend for three academic years at the University.

(viii) Take a degree in the Faculty of Arts, Applied Science or Law.

(ix) (If a candidate for a commission in the Royal Artillery.) Produce evidence of having qualified in the mathematical and science subjects set forth in Appendix II of the Regulations.

(x) Attend the course of lectures in Military Science and qualify at the written examination in Military subjects.

(xi) Pass a practical test in Map Reading and Field Sketching as laid down in Appendix III of the Regulations.

(xii) Be an efficient member of the McGill Contingent, Canadian Officers' Training Corps, each year from the date of his registration as a candidate for a commission in the Regular Army.

(xiii) During his residence at the University, be attached to a unit of the Regular Army or the Permanent Force and obtain a satisfactory certificate as to his proficiency.

(a) The attachment will be for a period of six consecutive weeks in the case of a candidate who, by the date of nomination, will have been returned as an efficient member of the Canadian Officers' Training Corps, in two or more years. In cases where efficient service in the C.O.T.C. will not have amounted to two years by the date of nomination, a second period of attachment for six weeks may, on the recommendation of the Nomination Board, be accepted in place of such service.

(b) Before this attachment, a candidate will be required to be a member of the Canadian Officers' Training Corps and to have been instructed in squad drill (as laid down in Infantry Training).

THE GRADUATE SCHOOL.

In the Graduate School are enrolled all the graduate students in the University who are following advanced courses of study in subjects which in the undergraduate work fall within the scope of the Faculties of Arts and of Applied Science.

The Faculty of the Graduate School consists of the professors of the Faculties of Arts and of Applied Science, but the initiative and administration of the School is placed in the hands of a Committee selected mainly from these Faculties and known as the Committee on Graduate Studies. The Chairman of this Committee is the official head of the Graduate School. The advanced courses of study offered in the Graduate School lead to the degrees of Master of Arts, Master of Science, and Doctor of Philosophy.

Instruction for students of the Graduate School is provided in the following departments of study which at present rank as "Subjects":—

Philosophy, including Psychology.
History.
Economics and Political Science.
Greek Language and Literature (including Grecian History).
Latin Language and Literature (including Roman History).
French Language and Literature.
German Language and Literature.
English Language and Literature.
Semitic Studies.
Archæology.
Comparative Philology.
Education.
Mathematics.
Physics.
Chemistry.
Botany.
Zoology.
Geology and Mineralogy.
Thermodynamics and Theory of Heat Engines.
Theory of Elasticity, Strength of Materials and Theory of Structures.
Hydrodynamics and Hydraulics.
Applied Electricity.
Theory of Machines and Machine Design.
Metallurgy.
Mining.

The requirements for the several degrees in course are as follows:—

Degree of Master of Arts.

1. Candidates must hold the degree of B.A. or B.Sc. (in Arts) from McGill University, or its equivalent.

2. Candidates must have taken

(*a*) One year of resident graduate study at McGill University; or

(*b*) If graduates of McGill University, two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study.

3. One, two or three subjects may be taken.

4. One of these subjects shall be designated as the major subject and special attention shall be devoted to it. It must be a subject which the student has already studied in his undergraduate course, and the work required in it will represent an attainment in knowledge far in advance of that required for the B.A. degree. The minor subject, or subjects, may be selected from those of the undergraduate course of the third or fourth year, which have not already been taken by the candidate. Not more than one-third of the candidate's time for the year shall be devoted to these subjects. The student shall pass an examination in each of the subjects of his course.

In the case of students of first rank honour standing in mathematics and physics, if the major work is to be in physics, exemption may be granted from part of the required attendance on lecture courses, on the recommendation of the Head of the Department in physics and subject to the approval of the Committee on Graduate Studies.

Candidates holding the ordinary B.A. degree must have taken all the ordinary undergraduate courses, or their equivalents in the subjects which they select as their major.

5. The student shall also present a thesis on some topic connected with his major subject. The title of his thesis

must have been previously submitted to the Committee on Graduate Studies and the Head of the Department concerned for their approval. The thesis must show evidence of distinct ability in dealing with the subject selected, and must also display good literary style.

6. Graduates possessing a Bachelor's degree, who act as demonstrators or tutors in the University for the entire session, may proceed to the degree of M.A., and, in so doing, may, at the discretion of the Department with which they are connected, and the Committee on Graduate Studies, omit a portion of the course of study. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for that degree. If, however, they desire this year's work to count as one of the three years of study required for the Ph.D. degree, they must make their course of study conform to the Ph.D. requirements.

N.B.—The first year's course of study for the Ph.D. degree will cover the requirements of the M.A. course; but, if such a course of study be followed, a thesis must be submitted and approved before the degree of M.A. is conferred. If, however, the student continues his course of study and takes the degree of Ph.D., the degree of M.A. will be conferred with the degree of Ph.D., in which case no special thesis will be required for the former.

Degree of Master of Science.

1. Candidates must hold the degree of B.A. or B.Sc. from McGill University, or its equivalent.

2. Candidates must have taken

(*a*) One year of resident graduate study at McGill University; or

(*b*) If graduates of McGill University, two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study.

3. The course of study followed by the candidate shall be of an advanced character, being the equivalent of that required for the degree of M.A., and shall lie in the domain of pure or applied science. It shall be selected from *one* of the last thirteen subjects in the list given above. Geodesy and ore dressing also constitute subjects in the case of this degree. This course of study must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval.

In the case of students of first rank honour standing in mathematics and physics, if the major work is to be in physics, exemption may be granted from part of the required attendance on lecture courses, on the recommendation of the Head of the Department in physics and subject to the approval of the Committee on Graduate Studies.

4. The candidate shall also present a thesis on some subject connected with his course of study. The title of this thesis must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval. This thesis must show evidence of distinct ability in dealing with the subjects selected and must also display good literary style. It may deal with some very special topic, but the course of study followed by the student must cover a much wider field.

5. Graduates possessing a Bachelor's degree, who act as demonstrators or tutors in the University for at least one entire session, may proceed to the degree of M.Sc., and, on so doing, may, at the discretion of the Committee on Graduate Studies, omit a portion of the course of study usually required. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for the degree.

Degree of Doctor of Philosophy.

1. The candidate for the degree of Doctor of Philosophy must hold the degree of B.A. or B.Sc. from McGill University, or its equivalent.

2. He must have followed a course of at least three years' resident graduate study.

3. He must select one major subject and one minor subject. The minor subject selected must be related to his chief line of work. This minor subject shall have devoted to it about one-quarter of the instruction given during the entire course.

4. The candidate must satisfy the Committee that he has a reading knowledge of both French and German before he will be permitted to enter upon the course of the second year.

5. The examination on the major subjects shall cover not merely the formal courses of instruction which have been taken, but the candidate must show that he possesses a good general knowledge of the whole science or branch of learning which he has selected as his major subject. A similar general, though less detailed, knowledge shall be required in the case of the minor subject.

6. The candidate must also prepare a thesis which must display original scholarship or show marked ability to conduct research. If the thesis be accepted, two hundred printed copies of it must be deposited with the University Librarian before the candidate will receive his diploma.

The University has decided to exact a very high standard in the case of this degree, and at least three years of study are therefore demanded.

To meet immediate needs, the University has decided to offer the complete three years' course leading to the degree of Doctor of Philosophy in the following subjects taken as majors:—

Botany.
French.
Philosophy.
Physics.
Chemistry.
Zoology.
Semitic Studies.

Students desiring to proceed to the degree of Doctor of Philosophy in subjects other than those mentioned above may communicate with the Chairman of the Committee on Graduate Studies, to whom also application should be made by all students desiring to follow courses of study in the Graduate School.

Owing to the fact that in future all theses submitted by successful candidates for higher degrees will be bound and placed in the Redpath Library, candidates for such degrees are advised that the Committee on Graduate Studies will henceforth require all theses to be prepared in a uniform manner and in accordance with the following specifications:—

1st.—The paper is to be of uniform size, about 8¼ x 10 inches, and of substantial quality.

2nd.—The left-hand margin is to have a uniform width of about 1½ inches.

3rd.—All theses should be typewritten, if possible.

4th.—No binding is to be employed, but the loose sheets will be placed in a manilla envelope in the order of their pagination.

All theses for 1915-1916 *must be in the hands of the Chairman of the Committee on Graduate Studies on or before April 17th,* 1916. *No thesis received after this date will be accepted.*

REGISTRATION.

Application forms, with an outline of the course to be followed, must be filed with the Secretary, for the approval of the Committee, before the 10th of October each year.

Students whose course extends over more than one year must register at the commencement of each year of their course.

Application forms and registration cards may be obtained from the Secretary of the Committee.

THE UNIVERSITY LIBRARY.

C. H. GOULD, B.A., Librarian.

The University Library is under the general management of a Committee of Corporation, consisting of the Principal, Chairman; the Librarian, Secretary; two members of the Board of Governors; one Representative Fellow, appointed by Corporation; two representatives of the Faculty of Arts, elected by the Faculty; one representative of each of the Faculties of Applied Science, Law and Medicine, elected by their respective Faculties; and four other members appointed by Corporation.

The several libraries of the University now contain about 150,000 volumes, over 24,000 pamphlets, considerable collections of maps and photographs, and a number of the rarer and more costly monographs and serials which are indispensable for purposes of research; there being now on the shelves over 300 complete files of periodicals and publications of various literary and scientific societies.

Among the special collections possessed by the Library may be mentioned the Mendelssohn Choir Memorial Collection of Works on Music, the T. D. King Collection of Shakespeariana, the Redpath Historical Collection, and the Collection of Canadiana. The nucleus of the latter is formed by the choice library of the late Mr. Frederick Griffin, which he bequeathed to the University about forty years ago. It has been growing ever since, and includes, at the present time, besides numerous manuscripts, an interesting collection of Canadian portraits and autographs.

The Redpath Historical Collection was begun by the late Mr. Peter Redpath soon after he became a Governor of the University. It received substantial yearly additions from him up to the year of his death, after which it was steadily

augmented during the remainder of her life, by his widow. It is now large and valuable, and affords excellent opportunities for the study of history. Its most striking feature —a series of political, religious and social tracts, for which the first selections were made by the late Professor Henry Morley—was greatly enriched by the late Mrs. Redpath, and at present comprises about 10,000 brochures, dating from 1600 A.D. to the end of the nineteenth century.

The Medical Library, directly controlled by the Faculty of Medicine, is the largest of the departmental libraries, and is one of the most complete collections of its kind in the Dominion.

Current periodicals, with Transactions and other Society publications to the number of about 400 in the aggregate, are regularly received by the Library.

Founded in 1900, as a memorial to the late Mr. Hugh McLennan from his children, the Travelling Libraries of McGill University were endowed in 1911, by their founders. These libraries contain, each, from thirty to forty carefully-selected volumes; and are sent, on application, and on payment of a nominal fee of $3.00, to schools, to country libraries, to reading-clubs, and to small communities which possess no public library. Regulations and full particulars may be obtained from the Librarian of the University.

Although the Library is maintained primarily for members of the University, the Corporation has provided for admission, upon certain conditions, of such persons as may be approved by the Library Committee. It is the desire of the Committee to make the Library as useful to the entire community as is consistent with the safety of the books and the general interests of the University.

LIBRARY SUMMER SCHOOL.

The summer school for training librarians will open towards the close of June, 1915, and will continue for one month.

Its object is, firstly, to aid librarians of small libraries and library assistants to study those technical subjects, without

the knowledge of which no librarian can make even the smallest library as influential and as useful as it ought to be; secondly, to give the students a broader view of what the library should stand for in the community.

The principal subjects of study will be (a) *Classification*—based on Cutter's Expansive Classification, with practice work on selected books; (b) *Cataloguing*—the preparation of a dictionary catalogue on cards, including the various forms of author-entry, title- and subject-entry, analytics and references; (c) *Reference Work*—discussion of books used in reference work, with problems; (d) *Principles of book selection,* with problems. Other topics, including binding, library buildings, travelling libraries, and work with schools and children will receive attention. Anyone who holds a library position or appointment will be admitted without examination.

Fee for the course, $5.00. Supplies and stationery, about $3.00.

EXTRACTS FROM THE LIBRARY REGULATIONS.

1. The Library is closed on Sundays, and on nine other days during the year. These days, and any variation from the regular hours given below, are noted specifically in the Calendar under the day in question.

The hours of opening are:—

(a) During the session, from 9 a.m. till 6.30 p.m. and from 7.30 till 10.30 p.m. On Saturdays, from 9 a.m. till 5 p.m.

(b) During vacation from 9 a.m. till 5 p.m. On Saturdays, from 9 a.m. till 1 p.m.

2. Students in the Faculties of Arts, Law, and Applied Science are entitled to read in the Library, and may borrow books (subject to the regulations) to the number of three volumes at one time.

3. Students in the Faculty of Medicine, who have paid the Library fee to the Bursar, may read in the Library, and on depositing the sum of $5 with the Bursar, may borrow books on the same conditions as students in other faculties.

4. Graduates in any of the faculties, on making a deposit of $5, are entitled to the use of the Library, subject to the same rules and conditions as students in Arts, Law, or Applied Science.

5. Books may be taken from the Library only after they have been charged at the delivery desk; borrowers who cannot attend personally must sign and date an order, giving the titles of the books desired.

6. Books shelved in the reading-rooms or seminary-rooms must not be taken from the rooms to which they have been assigned; and, after they have been used, they must be returned promptly by readers to their proper places upon the shelves.

7. Before leaving the Library, readers must return to the attendant at the delivery desk books which they have drawn from the stack for use in the reading-room.

8. All persons using books remain responsible for them so long as the books are charged to them, and borrowers returning books must see that their receipt is properly cancelled.

9. Writing or making any mark upon any book belonging to the Library is unconditionally forbidden. Any person found guilty of wilfully damaging any book in any way shall be excluded from the Library, and shall be debarred from the use thereof for such time as the Library Committee may determine.

10. Damage to or loss of any books, maps, or plates, and injury of library fixtures, must be made good to the satisfaction of the Librarian and the Library Committee.

Damage, loss or injury, when the responsibility cannot be traced, will be made good out of the caution money deposited by the students with the Bursar.

11. Should any borrower fail to return a book upon the date when its return is due, he may be notified by postal card, and be requested to return the book. If the time has not been extended, or the book returned, after a further delay of at most three days, the book may be sent for by special messenger, at the borrower's expense, or may be replaced, and paid for, in the case of a student, out of the caution monies of such student; in the case of graduates or other borrowers, out of their library deposits.

12. Before the close of the session, students in their final year must return uninjured, or replace to the satisfaction of the Librarian, all books which they have borrowed.

13. Silence must be strictly observed in the Library.

14. Infringement of any of the rules of the Library will subject the offender to a suspension of his privileges, or to such other penalty as the nature of the case may require.

THE ROYAL VICTORIA COLLEGE.

The institution of the Royal Victoria College, in September, 1899, was a direct continuation of the work begun in 1883, during the Principalship of the late Sir William Dawson, when the late Lord Strathcona and Mount Royal placed a sum at the disposal of the University of McGill for the endowment of a College and classes for women. For many years previously it had been hoped by those interested in the education of women in Montreal that the University would extend its benefits to women, but the means necessary for carrying out such an aim had not been available. The classes were organized in 1884 as a special course in the Faculty of Arts, held at McGill College, separate in the main from those for men, but under identical conditions. In some of the work of the third and fourth years, and in the honour courses, the classes were held jointly.

The ultimate aim of Lord Strathcona had been the foundation of a place of residence, and with this object, he announced his intention of building and endowing the Royal Victoria College. By the opening of this Institution the opportunity of residence and college life is given to women students of McGill University, working in accordance with the system previously organized in the special course in Arts, but under greatly improved conditions. A share in the advantages of college life is offered also to the non-resident women-students of the University, who are henceforth also students of the Royal Victoria College. Additional elements have been added in the organization of a Musical Department, now superseded by the McGill Conservatorium of Music, and in the institution of resident women tutors. These additions are in accordance with the general aim of the College; *viz.*, the higher education of women, and mainly to qualify them to take degrees in Arts (including pure science), and to provide them with instruction in those branches of a

liberal education necessary thereto and in such other subjects as may from time to time be determined.

The College being a constituent college of McGill University, its students, whether graduate students, undergraduates, conditioned undergraduates, or partial students, follow the courses in Arts and pure science offered by the University.

Lectures are given by the professors and lecturers of the University, either in the College or in the University buildings, and students attend the University laboratories for practical instruction. In addition to the instruction given in lectures and laboratory practice, the students of the Royal Victoria College are assisted in their studies by the resident tutors.

THE COLLEGE BUILDING.

The College is situated on Sherbrooke Street, at the head of Union Avenue, in close proximity to the University buildings and to the slopes of Mount Royal. The building is fireproof, and much thought and artistic care have been given to the furnishing and decoration.

On the ground floor are the offices of the Administration, including the rooms of the Warden and Secretary, the professors' common room, lecture rooms, students' common room and a spacious dining hall. On the first floor are other lecture rooms, the library, reading room, a handsome assembly hall, and a few rooms for resident students. The second and third floors are occupied by the rooms of the resident students and tutors. These are of varying size and plan. Each student has a separate study bedroom. The entire use of a sitting-room can be obtained, and arrangements may be made for a sitting-room to be shared by the occupants of the two or three bedrooms immediately adjoining. The rooms are completely furnished, and no article of furniture need be brought by the students.

In addition to the lawn at the back of the College, the students are entitled to use, subject to regulations, the grounds of McGill University, with its tennis-courts, skating-rink, etc.

A nucleus of a College library has been formed with a set of books, comprising the chief stated books and others referred

to in connection with the University curricula, the modern language course being especially well represented. There are also works of general literature. The library is a reading-room, and the books are not taken away. The students have access also to the University lending library.

Resident students of music have the use of pianos in two practising-rooms, and, at certain hours, in other parts of the building.

A large gymnasium is provided, fully equipped in accordance with modern requirements. In connection with the gymnasium there are bath-rooms and dressing-rooms.

Students of the Royal Victoria College, as students of McGill University, are entitled to the use of the University Library, containing about 150,000 volumes, and the Peter Redpath Museum, containing large collections in mineralogy, palæontology, zoology, botany, archæology, and ethnology, and to work in the physical, chemical, zoological, botanical and other laboratories.

BOARD AND RESIDENCE.

Residence in the College building is open to graduate students, undergraduates, conditioned undergraduates, or partial students, but the last are not received in residence unless they take courses of study approved by the Faculty of the College. The charge for board and residence, in addition to the sessional fees for tuition (see page 70) is $340. An additional charge, varying from $25 to $60, is made for the use of a private sitting-room shared by two students or for the sole use of a private sitting-room. These charges cover the University session from about 28th September to about 14th May, and the summer classes, extending to June 12th, and other periods, if necessary, for examinations. Students remaining in residence during the Christmas vacation will be required to pay $1.50 a day for board and residence during that period. A deduction of $50.00 is made in the case of students who go out of residence at the end of the University session.

The health of the resident students is under the charge of a competent physician practising in Montreal, who may be consulted free of charge. Every student applying for admission to residence is required to forward a medical certificate on a form provided by the College.

Applications for admission or further particulars should be addressed to the Warden, Royal Victoria College, Montreal.

PHYSICAL EDUCATION.

The Department is in charge of the Medical Director of Physical Education of McGill, and a graduate of a Physical Education College.

Every student on entering the University is required to pass a physical examination (see regulation, page 43).

The regulation concerning vaccination (page 43) applies also to women students.

The physical education offered to undergraduate students includes educational, remedial and recreative gymnastics.

The educational gymnastics are based on anatomical and physiological laws; the exercises aim at producing the highest degree of health in each individual, and thus contribute to mental as well as to physical efficiency. The course of exercises, which is progressive throughout each session, encourages the harmonious development of the nervous and muscular system, and provides a remedy for incorrect habits of sitting, standing and walking. Special attention is given to the development of the chest, since a good lung capacity is the foundation of a really healthy constitution. A remedial gymnastic course is prescribed for undergraduate students with spinal curvature, or who are physically unfit for ordinary class work.

Undergraduates of the first and second years are required to attend two educational gymnastic classes per week and undergraduates of the third year one per week.* Under-

* In all cases of absence the student is required to report to the Physical Director. The ordinary interpretation of the one-eighth rule concerning absences does not apply in this Department. Every student is required to wear the costume recommended by the Department.

graduates of the fourth year wishing to enter educational gymnastic classes are expected to attend regularly. Undergraduate students entering the Royal Victoria College in their third or fourth year are required to attend educational gymnastic classes twice a week for one session, unless they are excused for reasons deemed sufficient by the Department. Work in the Physical Education Department, amounting to 140 hours during the four years' course, is required of all undergraduate students. The periods are used for instruction in personal hygiene and for educational, remedial and recreative gymnastics, according to the physical requirements of the individual. No student is asked to do work unsuited to her physique, and students debarred from exercise of any kind are dealt with separately and carefully advised. Reports of attendance in Physical Education are regularly sent to the Faculty.

The Physical Director arranges all regulations regarding necessary attendance and the substituting of recreative gymnastics for educational.

Recreative gymnastics, in the form of basketball, tennis, ice-hockey, fancy skating and athletic sports, are organized by the Athletic Association, under the supervision of the Department of Physical Education. All students are examined by the Medical and Physical Directors, and are required to pass satisfactory physical tests before taking part in any of these activities.

Partial students in residence are also required to attend educational gymnastic classes. Educational and recreative gymnastics are open to all partial students on payment of special fees.

For regulations concerning the Strathcona Prizes offered in this Department, see page 340.

For theoretical and practical courses of instruction offered to undergraduates and for courses for the training of teachers in Physical Education, see pages 339 and 341.

EXHIBITIONS AND SCHOLARSHIPS.

For a statement of the exhibitions and scholarships open to women students of the University, see pages 54 to 58.

In addition to these, and further to encourage residence within the College walls of students who might otherwise arrange to board in the city, the Warden and Staff are empowered to make nominations in any of the four College years to not more than three additional exhibitions of the value of $100.00 each.

MUSIC.

Instruction in music is offered at the McGill Conservatorium of Music,—Director, Dr. H. C. Perrin; Vice-Director, Miss Clara Lichtenstein. The subjects of instruction carried on in the Conservatorium are: pianoforte, singing, organ, violin, violoncello, and all orchestral instruments; harmony, counterpoint, canon and fugue, composition, form, analysis, history of music, theory, elements of music, orchestral class, ensemble playing, piano-accompaniment, part singing, choir singing, sight singing, operatic class, English, French, German, Italian, elocution. Students may prepare for the degree examinations in music of the University, or for other examinations recommended by the Conservatorium.

For information regarding courses in music leading to degrees, see page 335, and also the separate syllabus issued by the Conservatorium of Music.

Students taking undergraduate courses in music are eligible for residence in the College. Students taking other courses in music may also be eligible under certain conditions if there are vacancies in residence. For charges for residence, see page 361.

MACDONALD COLLEGE.

FOUNDATION AND PURPOSE.

Macdonald College, which is incorporated with McGill University, was founded, erected, equipped and endowed by Sir William C. Macdonald for the following among other purposes:—

(1) For the advancement of education; for the carrying on of research work and investigation and the dissemination of knowledge; all with particular regard to the interests and needs of the population in rural districts.

(2) To provide suitable and effective training for teachers, and especially for those whose work will directly affect the education in schools in rural districts.

SITUATION AND EXTENT.

The College occupies a beautiful site, overlooking the Ottawa River at Ste. Anne de Bellevue, twenty miles west of Montreal. The main lines of the Grand Trunk and the Canadian Pacific railways pass through the property, and the stations of both railways are within its boundaries.

The College property comprises 786 acres, and has been arranged into four main areas, *viz.*: (1) the campus, with lawn, school garden, and recreation fields for men and women; (2) experimental grounds, with plots for illustration and research in grains, grasses, and other farm crops; (3) the horticultural and poultry departments; and (4) the stock farm extending to 584 acres.

THE GENERAL ORGANIZATION.

The College is divided into three schools, and a student is enrolled in that one in which the major portion of his work is taken:

(1) **The School of Agriculture,** which aims to provide a thorough theoretical and practical training in the several branches of agriculture.

(2) **The School for Teachers,** which offers a comprehensive and thoroughly practical training in the art and science of teaching.

(3) **The School of Household Science,** in which young women receive training which will make for the improvement and greater enjoyment of home life and instructs them in professional work in household and institute superintendence and management.

ENTRANCE REQUIREMENTS.

School of Agriculture.

All candidates for admission:—

1. Must have entered upon their eighteenth year;

2. Must produce satisfactory evidence as to moral character, also medical certificate of physical health, including successful vaccination within the four years preceding date of entrance; and

3. Must produce evidence of having worked for a season (seed time to harvest) on a farm, affording a practical knowledge of ordinary farm operations. When it is thought necessary, this knowledge will be tested by a practical examination at entrance or any subsequent date.

All candidates for the one and two-year courses will be required to read and write the English language acceptably, to be proficient in the use of elementary mathematics, and to be acquainted with history and geography, especially of Canada.

A student who applies for admission to the courses leading to a degree will be required:—

(a) To pass, before entrance, an examination in English composition and dictation, English grammar, history and geography and arithmetic.

(b) Before being allowed to proceed with the work of the third year, to have obtained 60 per cent. of the marks in English and 50 per cent. in general proficiency in the exam-

ination of the work of the two-year course, and to be granted the permission of the Faculty;

or

(c) To have passed an examination* in the following subjects, up to the requirements for entrance to the other Faculties of McGill University—(1) English, (2) history and geography, (3) Latin, French or German, (4) algebra, part I, (5) geometry, part I, (6) any two of the following: botany, chemistry, physics, zoology; to have passed an examination in the work of the two-year course; and to have obtained the permission of the Faculty.

School for Teachers.

Teachers to be trained for the schools under the control of the Protestant Committee of the Council of Public Instruction for the Province of Quebec will be admitted under conditions prescribed by that body, particulars concerning which are given in detail in the Announcement of Macdonald College.

Teachers who desire training under other conditions will be admitted for courses under regulations of the Macdonald College Committee. Such candidates for admission:—

1. Must be 18 years of age;

2. Must be recommended by the Department of Education or a School Inspector of the Province in which they reside;

3. Must produce satisfactory evidence as to moral character; also medical certificate of health, including successful vaccination within the four years preceding date of entrance.

School of Household Science.

All candidates for admission:—

1. (a) To the homekeepers' course and short course, must have entered their eighteenth year; and

(b) To the institution administration, must have entered their twenty-third year.

---

* Certificates of having passed an equivalent examination will be accepted.

2. Must produce satisfactory evidence as to moral character; also medical certificate of health, including successful vaccination within the four years preceding date of entrance.

3. Must be able to read and write the English language acceptably and be proficient in the use of elementary mathematics.

LIVING EXPENSES AND FEES.

The charges for board and lodging are as follows:—

For each occupant of a double room with single beds, per week..... $4.00

The above charges must be paid strictly in advance, and may be for the whole term, or for four weeks at a time.

Caution Money.—Every student must also, at the time of entrance, make a cash deposit of $5.00 with the Bursar of the College, to cover fines, breakages, etc.; and as soon as any student's deposit is exhausted he or she will be required forthwith to make an additional deposit of the same amount.

FEES.

In the School for Teachers, tuition is free to residents of Quebec. Other residents of Canada are charged $75.00 per session, and students from outside of Canada $100.00.

In the School of Agriculture, tuition is free to students belonging to the farming community of the Province of Quebec in the first two years. For other residents of Canada the fee is $50.00, and for students outside of Canada $100.00.

In the School of Household Science, tuition is free for students belonging to the farming community of the Province of Quebec in the one and two-year courses; for other residents of Canada the fee is $75.00 and for students outside of Canada $100.00 per session.

PAYMENTS AT ENTRANCE.

	Tuition, *per session*	Laboratory Fee	Caution Money Deposit	4 Weeks Board in Advance*	Doctor's Fee	Laundry Fee	Total
SCHOOL OF AGRICULTURE :—							
First and Second Years :							
Students belonging to the farming community of the Province of Quebec....	Free	$ 5.00	$ 5.00	$16.00	$3.00	....	$ 29.00
Other residents of Canada.....	$ 50.00	5.00	5.00	16.00	3.00	....	79.00
Students from outside Canada.....	100.00	5.00	5.00	16.00	3.00	....	129.00
Third and Fourth Years :							
Students belonging to the farming community of the Province of Quebec....	50.00	15.00	5.00	16.00	3.00	....	89.00
Other residents of Canada.....	50.00	15.00	5.00	16.00	3.00	....	89.00
Students from outside Canada.....	100.00	15.00	5.00	16.00	3.00	....	139.00
SCHOOL FOR TEACHERS :—							
Residents of Quebec.....	Free	5.00	5.00	16.00	3.00	$1.00	30.00
Other residents of Canada.....	75.00	5.00	5.00	16.00	3.00	1.00	105.00
Students from outside Canada.....	100.00	5.00	5.00	16.00	3.00	1.00	130.00
SCHOOL OF HOUSEHOLD SCIENCE :—							
Homemaker and Institution Administration Courses :							
Students belonging to the farming community of the Province of Quebec....	Free	10.00	5.00	16.00	3.00	1.00	35.00
Other residents of Canada.....	75.00	10.00	5.00	16.00	3.00	1.00	110.00
Students from outside Canada.....	100.00	10.00	5.00	16.00	3.00	1.00	135.00
Short Courses (per course) :							
Students belonging to the farming community of the Province of Quebec....	Free	5.00	5.00	16.00	2.00	....	28.00
Other residents of Canada.....	25.00	5.00	5.00	16.00	2.00	....	53.00
Students from outside Canada.....	25.00	5.00	5.00	16.00	2.00	....	53.00

* Occupants of single rooms are charged 50 cents per week extra. Students in Agriculture from the Province of Quebec receive a grant from the Provincial Government of $7.00 per month of attendance on account of board. See next page.

THE B.S.A. DEGREE.

Students who shall have completed the regular course of study in Agriculture, as laid down in the Announcement of the College, shall have passed the prescribed examinations for graduation, and shall have performed such exercises as may be prescribed to that end—the whole to the satisfaction of the Faculty of Agriculture—shall be entitled to the degree of Bachelor of Science in Agriculture, and the designation of the degree, when abbreviated, shall be the letters B.S.A.

COLLEGE ANNOUNCEMENT.

Full details as to the courses, etc., will be found in the Announcement of Macdonald College, which will be sent, on application to the Principal, Macdonald College Post Office, Que.

PROVINCIAL GOVERNMENT GRANTS TO STUDENTS FROM THE PROVINCE OF QUEBEC.

(1) *School of Agriculture.*

The Department of Agriculture of the Province of Quebec grants to each student who belongs to the Province of Quebec $7.00 per month of attendance employed in studying according to the time tables in the School of Agriculture, Macdonald College. This amount will be placed to the credit of such students by the College Bursar and will be applied on account of board and lodging.

(2) *School of Household Science.*

The Provincial Government grants fifty bursaries of $20.00 each to Quebec students in the junior and senior years of the Household Science School.

THE UNIVERSITY BUILDINGS.

The Centre Building.—This is the oldest building of the group. It contains the lecture rooms of the Faculties of Arts and Law, as well as the botanical and zoological laboratories and the offices of the administration.

The Conservatorium of Music is situated at the corner of University and Sherbrooke Streets, adjoining the University grounds. On the ground floor are the offices of the Director and of the Secretary, the library and a concert hall where recitals by the staff and students are given during the session and where orchestral and choral practices are held (the more important concerts take place in the large assembly hall of the Royal Victoria College). The second and third floors contain a number of studios, where lessons are given by the various members of the staff, as well as a room for lectures in theory and history of music, sight-singing, etc. In the basement are several practice rooms.

The New Medical Building.—This building, erected at a cost of over $600,000, stands at the corner of Pine Avenue and University Street.

Of the central part of this building the greater portion is set aside for the accommodation of the library, the whole of the front of the second and third floors and a portion of the ground floor being used. On the third floor is a large students' reading room 76 x 24 feet, exceptionally well lighted and capable of accommodating 100 readers. On this floor also is the staff journal room and the private offices of the librarian. The second floor is occupied by the stack room, with accommodation for sixty thousand volumes, also by individual research and reading rooms. A portion of the ground floor is set aside for storage.

Besides the library, the central portion of the building contains also three lecture rooms, the private museum and offices of the professor of anatomy and the administration office, research and preparation rooms of the museum staff.

To the rear of the central building is the museum, probably the most complete structure of its kind in connection with a medical school on this continent. It is built in the form of a cross, three storeys high, splendidly lighted by ample window space on three sides and by a large central light well. Each floor is furnished with free stacks and wall cases made of steel and plate glass, thoroughly dust-proof. The anatomical collections are placed on the third floor, while the first and second floors are devoted to pathology. In both the anatomical and pathological sections of the museum the specimens have been prepared and classified with a view to their being made use of in the teaching of these important subjects.

The east wing gives accommodation for the departments of anatomy, pathology and bacteriology, and the dental department, the faculty rooms and administration offices, the mortuary and preparation

room for dissecting material, as well as ample space for students' lockers and lavatories, and a large, well-lighted students' reading and smoking room.

On the ground floor of this wing will be found the mortuary, in which there is provision for the storage of 80 subjects, and leading from this the preparation room. On this floor also is the large locker room, containing 400 steel lockers, the students' lavatory and the students' reading and smoking room, this latter being provided with newspapers and magazines and being under the control of the students themselves.

On the first floor is the Faculty room and a series of rooms for administrative work. The northern half of this floor is occupied by the dental department, comprising offices, lecture rooms and modern, well-equipped laboratories.

The second floor is wholly occupied by the department of pathology and bacteriology. In the southern half is the professor's private laboratory and office, four research and preparation rooms, a small demonstration theatre and an assistant's room. The northern half is occupied by the students' laboratory, a room 76 x 40 feet, splendidly lighted and equipped with all the necessary apparatus for modern laboratory instruction.

The third floor is taken up wholly by the department of anatomy and contains besides private offices and research rooms for the professor and staff, a large dissecting room, 88 x 40 feet, excellently lighted and fully equipped. There is also on this floor a large lavatory and students' locker room.

Between the second and third floors is a mezzanine floor which is devoted to the department of parasitology. Here, besides the private offices and research rooms of the professor, there are four fully-equipped laboratories for advanced work.

The west wing contains a large assembly hall. The remaining space is occupied by the departments of pharmacology and hygiene.

The Old Medical Building.—The Laboratory or North Wing of the Old Medical Building contains the laboratories for medical chemistry and physiology.

The ground floor is set apart for medical chemistry.

On the eastern side of the hall is the students' laboratory, 45 by 80 feet, which is well equipped for 190 students.

A research laboratory, with eight working places and adjoining professor's room, private balance room, etc., connect with the large laboratory.

On the western side of the hall is the lecture room, connected with two preparation rooms, store-rooms and a small bio-chemical museum.

The students' balance room and a dark room for polariscopic and photographic work are opposite the main entrance to the chemical laboratory.

Laboratory courses in general chemistry of the first year, organic and biological of the second year, and the physiological and clinical chemistry of the third year are given in the large laboratory. All classes are taken in sections.

The mezzanine floor contains the lecture room for physiology and a series of laboratories for advanced work in practical physiology.

The top floor is devoted entirely to physiology, there being two large laboratories and several smaller research and preparation rooms.

The Macdonald Engineering Building.—This building is designed to provide accommodation for six hundred students. The Departments of Civil Engineering, Architecture and Transportation are permanently provided for, while the Department of Electrical and Mechanical Engineering are given temporary accommodation until such time as independent buildings can be provided for the growing numbers in these departments. The ground floor is given up to the Civil Engineering, Geodetic, Electrical and Mechanical Engineering Laboratories and is for the most part 23 feet in height. Mechanical and Electrical Engineering Laboratories and the Workshops also occupy the three lower floors of the Workman Building. The centre portion of the second floor is used for purposes of administration (faculty room, offices, library, etc.). The front parts of the second and third floors are occupied by eight class rooms which contain 470 sittings, while the upper floors, both of the Engineering Building and the Workman Building, are devoted to drafting rooms, containing over 500 tables. The building throughout is of the most approved fireproof construction, not only in the matter of materials, but in arrangement as well, the several floors being divided by fire walls and fire doors into separate sections. It has been erected at a cost of about half a million dollars.

The Macdonald Chemistry and Mining Building.—In addition to the large lecture theatre, which seats about 250 students, there are here four lecture rooms for smaller classes and a number of offices. There are also three large general chemical laboratories (each with a floor space of about 2,400 square feet and accommodation for 200 students at a time), large laboratories for assaying, ore dressing and metallurgy, with a very complete equipment, and a number of smaller rooms and laboratories for special purposes, including research work. The reference library contains about 1,400 volumes.

The Macdonald Physics Building.—This building is five storeys in height, each floor having an area of 8,000 square feet. Besides a lecture theatre and its apparatus rooms, the building includes an elementary laboratory nearly 60 feet square, large special laboratories, a range of rooms for optical work and photography, separate rooms for private work, and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also a lecture room for mathematical physics, a special physical library and convenient workshops. The equipment of the Physics Building is exceedingly valuable and complete.

The Redpath Museum.—The Museum occupies a commanding position at the upper end of the campus, and besides its central hall and other rooms devoted to the collections, it contains a large lecture theatre, class rooms and work rooms. The collections in botany, palæontology, geology and zoology are very fully and admirably arranged for teaching purposes.

The University Library.—This building is a fine example of the Romanesque style of architecture. The general reading room is 110 feet long, 44 wide and 34 high, and will seat 150 readers. The book stack, four and five storeys in height, has a working capacity of 250,000 volumes. For other information regarding the Library, see page 355.

The Observatory is well equipped for instruction in the use of meteorological instruments and in astronomical work.

The Power Station.—The new Power Station supplies heat to the following buildings: New Medical Building, Old Medical Building, Engineering and Workman Buildings, Chemistry and Mining Building, the Physics Building and the Arts Building. It also furnishes current for light and power to these buildings and to the Royal Victoria College, the Union and Strathcona Hall.

The equipment of the station includes boilers of 1,000 H.P. nominal capacity, provision being made for future extension, and engines and generators of 600 kilowatt capacity. The coal bunkers hold 500 tons.

The heating distribution is partly by tunnel and partly by underground conduit, the farthest building served being at a distance of 700 feet from the station. Electric cables are placed underground in vitrified clay conduits.

The Royal Victoria College.—This is a residential college for the women students of McGill University. It is situated on Sherbrooke Street in close proximity to the University buildings and laboratories. On the ground floor are the offices of the administration; lecture rooms, students' common room, and a spacious dining hall. A gymnasium is fitted up in the basement. On the first floor are other lecture rooms, the library, reading room and a handsome assembly hall. The second and third floors are given up entirely to rooms for resident students. These rooms are handsomely furnished, as indeed is the whole building. The rates for board and lodging are very reasonable. Full information on all points can be obtained from the Warden. See also page 359.

The McGill Union stands at the corner of Sherbrooke and Victoria Streets, within two minutes' walk of the College gates. The building measures 93 feet by 71 feet and consists of three storeys and a basement. On the main floor are the dining and luncheon rooms; on the second floor, billiard rooms, a news hall, a reading room and library, a study and a lounging gallery (88 ft. by 21 ft.). The large hall is situated in the top storey. It measures 88 ft. by 45 ft. and has a seating capacity of 400. There are also smaller rooms for society meetings, etc. In the basement are baths, locker rooms and an exercise room (24 ft. by 38 ft.). The Union is the social centre of the University, the common meeting ground for students of all faculties. It is intended to promote a broad and true university spirit.

Strathcona Hall is the home of the Young Men's Christian Association of the University. The building is 55 feet by 110 feet, and is five storeys in height. The three upper storeys are arranged to afford residential accommodation for about sixty students. On the ground floor are the Secretary's office, sitting rooms, cloak rooms and a hall capable of seating 350 persons. The second floor contains a large reading room, a large game room, and five small rooms for the use of clubs and societies.

LABORATORIES, MUSEUMS AND WORK-SHOPS.

1. LABORATORIES.

BOTANICAL LABORATORIES.

The Botanical Laboratories occupy a large room on the ground floor of the West Wing and the upper floor of the central part of the Arts Building. The laboratories for morphology afford accommodation for twenty-five students. Each table is provided with a complete outfit of instruments and reagents. In addition, the laboratories are supplied with the more necessary apparatus for general use. There is a good supply of lantern slides and of sets of microscopic preparations for demonstration purposes.

The physiological laboratory, on the ground floor, is provided with sufficient apparatus to permit of a few students working in it at the same time.

A library attached to the department includes not only reference books, but 3,000 pamphlets and the leading botanical periodicals. The Botanical Room of the. Peter Redpath Museum contains an herbarium of about 50,000 species of plants, a collection of woods and other material illustrative of economic botany. A supply of preserved material is also kept on hand.

CEMENT LABORATORIES.

The equipment of the laboratory renders it possible to carry out complete tests of the strength and properties of cements, mortars, concretes, concrete beams, etc., and includes:—

(*a*) Three one-ton tensile testing machines, representing the best English and American practice; (*b*) One 50-ton hydraulic compressive testing machine; (*c*) Volumenometers for determining specific gravity and for determining the carbonic acid in the raw material; (*d*) Faija steaming apparatus for blowing tests; (*e*) Mechanical hand and power mixers; (*f*) Apparatus for determining standard consistency; (*g*) Vicat's and Gilmore's needles for determining set; (*h*) Weighing hopper, spring and other balances; (*i*) Gun metal moulds for tension, compression and transverse test pieces; (*j*) Sieves of 20, 30, 40, 50, 60, 70, 80, 100, 120 and 180 meshes per lineal inch for determining the fineness; (*k*) A Bœhme hammer, with all accessories.

The laboratory is also fitted with copper-lined cisterns, in which the briquettes may be submerged for any required time, and with capacious slated operating tables, bins and tin boxes for keeping the cement dry for any period.

A large amount of work is done each year by the third-year students, in investigating the specific gravity, fineness, setting properties, constancy of volume, and tensile, compressive and transverse strength of cement, both neat and with sand.

CHEMICAL LABORATORIES.

(In the Chemistry and Mining Building.)

The three principal laboratories have each a floor-space of about 2,400 square feet, and together have accommodation for nearly two hundred students working at a time. They are lighted on three sides, and have ample hood space. One is intended for beginners, and the other for more advanced work, more particularly in qualitative and quantitative analysis. In connection with each of the main laboratories is a balance-room, equipped with balances by several of the best makers.

Physical Chemistry is provided for in a special laboratory, nearly 30 by 40 feet, lighted from the north, and supplied with electricity, steam, vacuum pumps, etc. The equipment of this department consists of the apparatus necessary for the determination of the specific gravities of solutions, of the depression of freezing point, of the rise of boiling point, and of densities of gases and vapours. There are constant-temperature baths for accurate measurement of solubilities, Kohlrausch's apparatus for determining the electrical conductivity of solutions, and the apparatus necessary for measuring the electromotive forces generated between metals and their solutions, and in voltaic cells generally. There are also calorimeters for measuring the heat effects produced in chemical reactions. On the same floor there is an optical room, devoted more particularly to crystallographic work and furnished with goniometers, polarising microscopes, axial-angle apparatus, refractometers, etc. Other forms of apparatus will be added as required for research work.

Immediately adjoining the laboratory of physical chemistry is the photographic department, supplied with two dark rooms, arranged on the maze system, and provided with the necessary appliances for all ordinary photographic work, including an enlarging camera and apparatus for micro-photography.

The laboratory for gas analysis has a northern exposure, and is fitted with a large tank to contain water at the temperature of the room, for use in obtaining a constant temperature in the measurement of gases. The tables are arranged for work with mercury, and the laboratory is supplied with the apparatus of Hempel, Dittmar, Orsat, Elliot and others. It contains also Fleuss, Boltwood, and Töpler pumps for producing high vacua.

The laboratory for electrolytic analysis is supplied with accumulators, thermophile, platinum electrodes, rheostats, ammeters, voltmeters, etc.

Another room has lately been equipped with electric furnaces and other appliances for electro-chemical work.

The organic department comprises a laboratory for preparations and research, a combustion room for analysis, a dark room for polariscope and saccharimeter work, and a lecture room. The laboratory is fitted with all the necessary apparatus for organic research—special hoods for work with poisonous gases, regulating ovens for digesting and drying at various temperatures, filter presses for the extraction of raw materials, and various forms of apparatus for distillation in vacuo. The dark room is equipped with polariscopes and saccharimeters for sugar work. There is a large supply of the necessary

organic chemicals, which are supplied free of charge to students engaged in routine or research work in this department.

The laboratory for determinative mineralogy accommodates 28 students at one time, and is supplied with abundant materials for practical work. It adjoins the lecture-room in which the lectures in advanced mineralogy are delivered. The mineralogical department is also provided with suitable machinery, run by electricity, for the cutting and polishing of minerals and rocks.

ELECTRICAL LABORATORIES.

The experimental equipment of the electrical department is contained in the fourth year, third year, standardizing, high voltage and oscillograph laboratories. Power is supplied to these laboratories from the 220-volt, 3-wire, D.C. generators in the central power house. The voltage is maintained approximately constant on the two sides of the system by a balancer set located in the fourth year laboratory.

The fourth Year Laboratory is equipped primarily for the study of alternating current phenomena and is equipped with: Motor-driven alternators of various types, giving a range of frequency of from 25 to 250 cycles per sec.; single and polyphase induction motors of the squirrel cage and wound rotor types; single phase series and repulsion motors; constant voltage and constant current transformers; mercury arc rectifier; rotary converters; potential regulators; meters for the measurement of current, voltage, power, frequency, power factor, and wave form; rheostats, circuit breakers, condensers, reactance coils, synchroscopes and other auxiliary apparatus. An electric travelling crane spans the laboratory and gives facilities for the rearrangement of the machines.

The Third Year Laboratory is used by the third year electrical students for the study of current flow in circuits and of direct current machinery. It is also used by the students of other departments who are taking an elementary electrical course, for the study of both direct and alternating current phenomena. The laboratory is equipped with: Shunt, compound and series wound direct current generators and motors of different types; constant current generators; arc and incandescent lamps; meters for the measurement of current, voltage and power; rheostats, circuit breakers, starters and other auxiliary apparatus.

Several small alternators, transformers, rotary converters and induction motors along with the necessary instruments and control apparatus are provided for use by the students taking the general elementary course.

A hand-operated travelling crane gives facility for the rearrangement of the machines.

The Standardizing Laboratory is equipped for the accurate measurement of direct currents to 1,000 amperes and voltages to 1,500 and of alternating currents to 200 amperes and voltages to 1,500. By the use of standard instrument transformers, alternating currents to 5,000 amperes and voltage to any reasonable value may be accurately measured.

The equipment includes: Kelvin current and watt balances; Weston laboratory standard ammeters, voltmeters and wattmeters;

potentiometers; Wheatstone and conductivity bridges; galvanometers, standard resistances and cells and other special apparatus.

The power is obtained from two motor generator sets, from one of which direct current to 1,000 amperes may be obtained and from the other alternating current may be obtained over a considerable range of frequency up to 1,500 amperes and at any phase relation to voltages up to 440.

A considerable amount of commercial work is done in this laboratory, the revenue from which is devoted to the purchase of new equipment for the department.

The High Voltage Laboratory contains the following equipment: Four 200 to 50,000 volt transformers supplied with condenser bushings and insulated so as to operate up to 300,000 volts; one 200 to 2,000 volt insulating transformer; one 110 to 20,000 volt testing transformer; standard spark gaps for oil and air; cathode ray tubes, electrostatic voltmeters and other auxiliary equipment.

The transformers are provided with auxiliary voltage coils for direct pressure measurement and for connection to the oscillograph.

The connections to this laboratory are such that any machine in the department may be used as a source of power and controlled directly from the transformer room, so that a wide range of frequency and of wave form is available for experimental work.

Oscillograph Laboratory. This is equipped with a Blondel triple oscillograph with both visual and photographic attachments and is specially adapted for the study of transient phenomena.

The department maintains a small machine shop for instrument and machine repair and for the construction of special experimental apparatus.

Wireless Telegraph Laboratory.—A permanent aerial, 350 feet in length, of the inverted "L" type, has been installed, with a natural wave length of 600 metres. Waves varying in length from 500 to 8,000 metres can be detected. A number of receiving sets have been loaned to the department and others are being constructed.

GEODETIC LABORATORY.

The equipment of this laboratory consists of:—

(1) Linear instruments: a Rogers comparator and standard bar for investigating standards of length; a fifty-foot standard and comparator for standardizing steel bands, chains, tapes, rods, etc.; a Munro-Rogers linear dividing engine.

(2) Circular instruments: a Rogers circular comparator; four level triers.

(3) Time: an astronomical clock and clock circuit in connection with the observatory clocks; chronometers running on mean and sidereal time; chronograph.

(4) Gravity: a portable Bessel's reversible pendulum apparatus with special pendulum clock and telescopic apparatus for observing coincidence by beats.

(5) A water gauge apparatus for testing aneroid barometers.

The laboratory and clock rooms are constructed with double walls and enclosed air spaces, and their heating is controlled by special thermostats, so that the temperature within may be brought to, and held at, any desired degree.

Astronomical Observatory.

The observatory equipment for the purpose of instruction in practical astronomy consists of:—

A Bamberg prismatic transit with zenith attachment; five astronomical transits for meridian observations; a Troughton & Simms' zenith telescope; sidereal and mean time clocks and chronometers, chronograph and electrical circuits by which observations and clock comparisons within or without the observatory may be made.

HYDRAULIC LABORATORY.

In this laboratory the student studies experimentally the laws governing the flow of liquids through orifices, pipes, weirs, etc., and also carries out experiments on the efficiency of various forms of water motors running under different conditions as regards head and supply.

The equipment includes:—Apparatus for the measurement of the discharge of water from orifices, nozzles, weirs, etc., under varying conditions; arrangements for investigation of the loss of head by surface friction, and at curves and bends in pipes; Venturi meter for use at different discharges; a hydraulic ram working against different heads; various water motors, including Pelton wheels, Girard impulse turbine, Brotherhood three cylinder rotary engine, Thomson inward flow reaction turbine, American turbine; apparatus for measurement of pressure due to impact of jets on surfaces of different forms; gauge testing appliances; Hele Shaw's apparatus for study of the steam lines in a perfect fluid, illustrating the flow round obstructions in a channel, and numerous magnetic problems; numerous calibrated tanks, weighing appliances, and measuring apparatus in connection with the above.

MECHANICAL ENGINEERING LABORATORIES.

These laboratories are used in connection with the courses in Mechanical Engineering subjects. The smaller apparatus belonging to the laboratories includes the necessary equipment of weighing machines, ordinary and water dynamometers, steam calorimeters, thermometers, gauges, pyrometers, coal, gas and oil calorimeters, indicators, planimeters, flue gas analysis, etc.

1. Mechanical Laboratory.—The equipment of this laboratory includes:—

A belt testing machine capable of taking a six-inch belt at 15 feet centres (the machine has special hydraulic dynamometers and a friction brake and will absorb 15 H.P.); a Thurston railway pattern oil tester, fitted with water cooling and heating apparatus for varying the temperature of the brasses as desired; standard viscosimeters and other necessary apparatus for the physical testing of lubricants; a high speed horizontal engine having a cylinder 6 inches diameter 9 inches stroke, and operated by compressed air; a gas-fired preheater for the above engine; two standard 9½-inch Westinghouse air brake pumps, fitted for testing and for supplying compressed air for experimental and other purposes; a non-rotative Blake steam pump, having steam and water cylinders 4½ and 2¾ inches diameter and 4½

inches stroke; apparatus for measuring the heat loss from pipe coverings and from radiators; a specially designed hydraulic support and fittings for carrying out experiments on the action of cutting tools in the lathe; apparatus for experiments on the efficiency of pulleys and hoisting appliances; on the efficiency of worm and other gearing; for governor testing; for testing fans and blowers; for studying problems connected with the balancing of reciprocating engines.

2. Steam Engine Laboratory:—

The steam Laboratory is furnished with an experimental steam engine of 120 I.H.P., specially designed for investigating the behaviour of steam under various conditions: the cylinders are 6½ inches, 9 inches, 13 inches and 18 inches in diameter, and the stroke of all the pistons is 15 inches. The cylinders can be so connected as to allow of working as a single, compound, triple, or quadruple expansion engine, either condensing or non-condensing, and with any desired rate of expansion. The jackets are so fitted as to permit of measuring independently the water condensed in the cover, barrel, or bottom jacket of each cylinder, and the engine can be worked with any desired initial pressure up to 200 lbs. per square inch. The measurements of heat are made by means of large tanks, which receive the cooling water and the condensed steam. There is an independent surface condenser and air pump. Two hydraulic absorption brakes and an alternative friction brake serve to measure the mechanical power developed.

This Laboratory also contains the following machinery:—

A Robb automatic cut-off engine, having a cylinder 10½ inches in diameter by 12 inches stroke. This engine is specially fitted up for the measurement of cylinder temperatures, and can be run at speeds up to 300 revolutions per minute.

An automatic high speed engine by Macintosh & Seymour, having a cylinder 12 inches in diameter by 12½ inches stroke. In connection with this engine there is an automatic recording apparatus for registering the load on the brake.

A Leonard horizontal engine, having a cylinder 8 inches diameter by 9 inches stroke, specially fitted for instructional work in valve setting and provided with an independent surface condenser.

A two stage air compressor (built in the workshops of the Department taking 40 H.P., and having cylinders 10 inches and 17 inches in diameter, by 15 inches stroke. The compressor delivers its air into reservoirs placed beneath the floor of the machine shop, and is provided with an intercooler whose capacity can be varied as desired.

A 15 K.W. Curtis steam turbo-generator with independent surface condenser, air pump, and a bank of lamps for varying the load.

Two 12 H.P. high speed forced lubrication compound engines (built in the workshops of the Department), one of which is used to drive a Hall 1-ton CO_2 ice machine.

Steam is supplied to this Laboratory by the boilers in the Workman Building. These consist of one 100 H.P. locomotive boiler, Belpaire type, fitted with Howden oil burning furnace, two Babcock and Wilcox water-tube boilers, each 60 H.P., and one Yarrow water-tube boiler, fitted in a closed stokehold, for working under forced draft, rated at 100 H.P. These boilers are fitted with the necessary tanks, weighing machines and apparatus for carrying out evaporative tests.

For the study of superheated steam there is a B. & W. separately fired superheater.

3. Gas Engine Laboratory. This Laboratory contains:—

A horizontal gas engine by the National Gas Engine Company, having a cylinder 12 inches diameter by 20 inches stroke and developing 40 B.H.P.; a suction-type producer for the above, with the necessary scrubbers and gas cleaning apparatus; a down draft producer designed for working with lignite and bituminous coal; a standard 4-inch gas meter, gasometer, and exhauster; an Otto type gas engine (built in the workshops of the Department), having a cylinder 8½ inches diameter by 12 inches stroke, and giving 10 B.H.P., with city gas; a 2-cylinder 2-cycle Grey gasoline engine (built in the workshops of the Department), and giving 14 B.H.P. and a 4 H.P. Blackstone oil engine.

METALLURGICAL AND ASSAYING LABORATORIES.

These consist of a large furnace room of 2,200 sq. feet, for metallurgical operations, a furnace room for assaying of 1,300 sq. feet, a balance room, small chemical laboratory, and parts of other rooms, which are utilized for pyrometric and photo-microscopic work. The furnace room is fitted with a water-jacket blast-furnace, 21 inches inside diameter, for smelting lead and copper ores; also a hand reverberatory furnace for roasting ores, having a hearth 14 ft. by 6 ft., and a Bruckner roasting furnace.

The furnace room adjoins the milling and ore-dressing room (see below) and ores which have been crushed and dressed can easily be conveyed into the furnace room for roasting, smelting or leaching treatments. In addition to this comparatively large scale plant, apparatus has been provided to enable the students to study in detail the more important metallurgical operations, using quantities of ore or metallurgical products of usually not more than a few pounds in weight. With such appliances the work of the student can be of a more individual character than is generally possible with large-scale plants, and the reactions which occur can be more easily and exactly studied.

For the purpose of small-scale work there is a large crucible furnace which can be used with either natural or forced draught, an oil-fired crucible furnace, a large gas-furnace which can be used either as an oven-furnace or a muffle furnace, and a number of small muffle and crucible furnaces in the assaying laboratory. Several small dental furnaces have recently been added for the course of instruction in Dental Metallurgy.

Small blast-furnaces, lined with brick, have been constructed and used successfully for smelting small quantities of copper and cobalt ores. A Roots' blower has been provided for the blast furnaces, and connections for supplying forced draft have been made to the gas and reverberatory furnaces. Leaching operations on a small scale are conducted in stoppered bottles which can be agitated by machinery.

Provision has also been made for electric furnace work. The plant consists of a 50 H.P. motor 30 K.W. alternating current generator and transformers with measuring instruments. A Colby induction furnace and a Rennerfelt arc furnace have been installed for making steel electrically, and the smelting of ores and other electric furnace

operations can be carried on satisfactorily with this plant. A low-voltage 1 H.P. direct-current generator is employed for electrolytic operations.

A powerful hydraulic press and a piece of apparatus for compressing gases by hydraulic power are available for experiments that have to be conducted under great pressure.

A small drop-testing machine and a Sankey metal bending tester have been installed for investigating the mechanical properties of metals.

The Assaying Laboratory is equipped with a number of muffle and crucible furnaces fired with coke, a large gas muffle furnace and a small muffle furnace and a crucible furnace fired by gasolene.

Adjoining the Assaying Laboratory is the balance room and a small laboratory for chemical work.

In another room are a number of electrical and other pyrometers, and a micro-photographic outfit for recording the microscopic structure of metals and alloys. Polishing machines worked by power have been installed to prepare the specimens for examination.

MINING AND ORE-DRESSING LABORATORIES.

The Department of Mining Engineering has one large laboratory in two storeys for ore-dressing, and a number of rooms of moderate size equipped for use as special laboratories, offices, lecture room, dark room, machine shop, etc. The effective floor space is about 8,500 square feet, in addition to which the departmental store rooms, ore bins, etc., have an area of 1,500 feet.

The ore-dressing laboratory proper has about 5,000 feet floor space and is 25 feet high in the centre.

It is equipped with two classes of apparatus. First, a large number of pieces especially designed for individual work on a small scale. Many of these are for elementary investigations and demonstrations of a theoretical nature, others are working reproductions on a reduced scale of typical ore-dressing and milling machines. Second, a complete plant of standard apparatus for ore crushing, sampling, milling, concentrating and for coal washing. The apparatus has been chosen from the best designs in common use and whenever possible each important class of ore-dressing machinery is represented by two or more different types, in order that comparisons may be made. Each machine is so arranged that it may be used and tested independently, but, when expedient, a number of machines can be connected by conveyors, and thus complete plants of various kinds can be improvised, each of sufficient capacity to test large lots of material under approximately working conditions.

The chief pieces of apparatus in the main laboratory are rock-breakers of four kinds, Blake, Dodge, Gates, and Sturtevant, for coarse crushing; gravity stamp mills of 600 and 950 lbs., respectively, a Nissen stamp of 1,200 lbs., and a small steam stamp for the fine crushing and amalgamating of gold ores; Huntington centrifugal roller mill, for crushing and amalgamating; high speed steel-tyred rolls for fine crushing; Sturtevant and Gates' grinders for preparing samples, and ball mills, pebble mills and amalgamation pans for extremely fine grinding.

Following these there are Vezin, Jones and Brunton samplers; a Callow belt screen, a series of trommels and hand and power shaking screens for sizing the crushed ores; two especially designed jigs of two and four compartments, with adjustable eccentric, cam and slide mechanisms, a pneumatic jig, a Richards' pulsator jig, a Taylor vibrating jig and several small hand and power jigs for coarse and medium concentration; revolving, bumping and stationary tables; a stationary glass table; Frue vanner, Wifley table, Bartlett table, Bartlett canvas table, Bell's classifiers and feeders, etc., for separating valuable minerals contained in the fine sands and slimes; plates, pans and barrels for amalgamating gold and silver ores; agitators, vats, vacuum filters, and other apparatus for flotation, cyaniding, chlorinating and other extraction processes; spitzkasten, spitzlutte, magnetic separators, an electrostatic separator, coal washers, cones, and various other special pieces of ore-dressing apparatus.

An hydraulic lift and a number of belt and bucket and hydraulic jet elevators, feeders, samplers, steam jacketed drying tables, etc., are provided for use in heavy continuous work. The power chiefly used is electricity, generated in the University power and light station and utilized through a number of independent electric motors aggregating 70 H.P. conveniently placed near the machines to be operated, but steam is used for some pieces of apparatus and others may be driven by a Pelton wheel. A motor-driven air-compressor of 7½ H.P. provides an ample supply of compressed air. The department is equipped with suitable apparatus for electrical measurements, and is thus able to make continuous and accurate determinations of the amount of power used by each machine.

In addition to the main laboratory there are excellent facilities for advanced and research work—including a small but thoroughly equipped chemical and assay laboratory and photographic room. The department possesses a number of cameras, microscopes, recording gauges and indicators, a good equipment of weighing and measuring devices, and a number of pieces of special apparatus for advanced theoretical investigation.

PETROGRAPHICAL LABORATORIES.

The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the Chemistry and Mining building, and is arranged for the use of students in the Mining Course, as well as for those desirous of taking advanced work, such as Graduate students and those taking Honour Courses in Arts. It is provided with a number of petrographical microscopes by Selbert, Crouch, and Fuess, as well as with models, sets of thin sections, electromagnets, heavy solutions, etc., for petrographical work.

A collection of typical rocks has been especially prepared for the use of students, and a complete equipment for cutting, grinding, and polishing rocks has been installed, which runs by electric power and gives excellent facilities for the preparation of thin sections for microscopic use.

For advanced work and petrographical investigation Dr. Adams' extensive private collection of rocks and thin sections is available for purposes of study and comparison.

THE PHYSICAL LABORATORIES.

The equipment of the Macdonald Physical Laboratories comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by students in practical work; (3) various types of all important instruments for exact measurements, to be used in connection with special work and research.

The Magnetic Laboratory contains magnetic instruments and variometers of different patterns, and also a duplicate of the B. A. Electric-dynamometer. The laboratory on the opposite side of the basement contains a Lorenz apparatus for the absolute measurement of resistance, constructed under the supervision of Prof. Viriamu Jones.

There is a Constant Temperature Room, surrounded by double walls, which contains a Standard Rieffler Clock, and is fitted for comparator work.

The first floor contains the main Electrical Laboratory, which is a room 60 feet by 40, and is fitted with a number of brick piers, which come up through the floor, and rest on independent foundations, in addition to the usual slate shelves round the walls. This room contains a large number of electrometers, galvanometers, potentiometers, and other testing instruments of various patterns, and adapted for different uses. Three small research laboratories adjoin the electrical laboratory. A well-equipped workshop serves for the construction of research apparatus and repair work.

On the second floor of the building there is the Heat Laboratory, devoted to advanced work in thermometry, pyrometry and calorimetry and also to such electrical work as involves the use of thermostats and the measurement of the effects of temperature. This adjoins a private laboratory fitted for research work. The lecture theatre is situated on this floor. The third floor contains two small lecture rooms, a library and reading room for the staff, an elementary laboratory and professors' rooms.

The fourth floor contains the large Elementary Laboratory, a room 60 feet square, devoted to elementary practical work in heat, sound, light, electricity and magnetism. There is a demonstrators' room adjoining, and an optical annex devoted to experiments with lenses, galvanometers ,etc., which require a darkened room. On the other side of the building there is a spectroscopic room, containing a six-inch Rowland grating, with mountings by Brashear, and other large spectrometers and polarimeters; also a series of smaller optical rooms, including a photometric room, especially fitted for arc photometry and a dark room for photographic work.

LABORATORY OF PHYSIOLOGY.

The Department of Physiology occupies part of the old Medical Building. It consists of a large general laboratory, with accommodation for 80 students working at one time; a lecture theatre, with lantern and projection electrometer; a demonstration theatre for experiments shown to students, and a number of smaller rooms fitted up for work on the physiology of the special senses, aseptic physiological operations, X-ray demonstrations, etc., etc.

THE PSYCHOLOGICAL LABORATORY.

The Psychological Laboratory occupies two rooms in the Arts Building. It contains apparatus for the study and investigation of sensation, perception, ideas, memory, association, attention, volition, feelings, emotions and reaction. This equipment serves three purposes: First, it is adapted to research work in the various fields of experimental psychology, including physiological psychology, educational psychology, and applied psychology. Second, it is used to acquaint beginners with the methods of experimental psychology, both qualitative and quantitative. Third, it furnishes material for experimental demonstration in the elementary and advanced lecture courses.

STRENGTH OF MATERIALS LABORATORIES.

These laboratories are equipped with apparatus for the determination of the physical properties of the materials of construction and for illustrating the fundamental laws of the strength of materials. The equipment includes:—

(*a*) Riehlè testing machine of 60,000 lbs. capacity, a Wicksteed 100-ton and an Emery 75-ton machine for testing the tensile, compressive and transverse strength of the several materials of construction. To the Wicksteed has been added a specially designed arrangement, by which the transverse strength of girders and beams up to 26 ft. in length can be determined. Special holders have also been designed and made in the laboratory for investigating the tensile and shearing strength of timber, and for the testing of wire ropes, belts, etc.

(*b*) An Impact Machine, with a drop of 30 ft., and with gearing which will enable specimens to be rotated at any required speed, and the blows to be repeated at any required intervals. By means of a revolving drum, a continuous and accurate record of the deflections of the specimens under the blows can be obtained.

(*c*) A Torsion Machine with a specially designed angle-measurer, by which the amount of the torsion can be measured with extreme accuracy.

(*d*) An Accumulator, furnishing a pressure of 3,600 lbs. per square inch, which is transmitted to the several testing machines, and ensures a perfectly steady application of stress, an impossibility when any form of pump is substituted for an Accumulator. An automatic electric motor has been designed in the laboratory and constructed for the purpose of actuating the accumulator.

(*e*) A Blake and Worthington steam pump and an electric pump, designed to work against a pressure of 3,600 lbs. per square inch. The Accumulator may be actuated by any of the pumps, and, if at any time it is necessary to do so, any of the pumps may be employed to actuate the testing machine direct. When in operation the work of the pump and the accumulator is automatic.

(*f*) Extensometers of the Bovey, Ewing, Unwin, Martens, Marshall and other types.

(*g*) Portable cathetometers, and also a large cathetometer specially designed and constructed for the determination of the extensions, compressions and deflections of the specimens under stress in the testing machines.

(*h*) Various electric motors for working the several machines.

(*i*) A drying oven for beams up to 26 feet in length. The hot air in this oven is kept in circulation by means of a fan driven by an electric motor.

(*j*) Numerous gauges, amongst which may be specially noticed an Emery pressure gauge, graduated in single lbs. up to 2,500 lbs. per square inch. All of the testing machines are on the same pressure circuit, and are connected with the Emery gauge and also other standard gauges, including recording gauges. This arrangement provides a practically perfect means of checking the accuracy of the testing.

(*k*) Special apparatus and recording gauge for the testing of hose, etc.

(*l*) Dynamometers for measuring the strength of textile fabrics, the holding power of nails, etc.

(*m*) Apparatus for determining the elasticity of long wires.

(*n*) Apparatus for determining the hardness of materials of construction.

(*o*) Zeiss and other microscopes.

(*p*) Delicate chemical and other balances. A very important part of the equipment is the Oertling balance, capable of indicating with extreme accuracy weights of from .00001 lb. up to 125 lbs.

(*q*) Apparatus for the microscopic study of metals and for microscopic photography.

(*r*) Micrometers of all kinds.

(*s*) A transverse bending machine which is adapted for loads up to 3,000 lbs. and for beams of 10 ft. span and a testing machine for applying bending and torsion simultaneously.

ZOOLOGICAL LABORATORIES.

The Zoological Department occupies the whole of the uppermost floor of the east wing of the Arts Building and the larger portion of the floor immediately below.

It consists of:—

(*a*) A large laboratory affording accommodation for a class of 100 students.

(*b*) A smaller laboratory capable of seating about 18 students.

(*c*) Three smaller laboratories fitted up for purposes of research.

Dissecting trays, simple and compound microscopes, reasonable quantities of the ordinary reagents and of glass are provided by the department, but students provide themselves with razors for cutting sections.

The Department is provided with four large tanks and a number of smaller ones in order to maintain a supply of fresh specimens throughout the winter.

The laboratories are well provided with thermostats, microtomes, apparatus for microphotographic work and other instruments required for advanced research. There is also a library attached to the department.

2. MUSEUMS.

MUSEUM OF ANATOMY.

DIRECTOR:—PROFESSOR A. CAMPBELL GEDDES.
ASSISTANT:—J. C. SIMPSON, B.Sc.
OSTEOLOGIST AND ARTICULATOR:—E. L. JUDAH.

The disastrous fire of 1907 completely destroyed the Museum of Anatomy, but steps were immediately taken to replace the teaching material, and already the department is well supplied. Many specimens have been received from the Army and Navy Museums of Washington, D.C., and from other institutions. Numbers of models and bone models of viscera and brain and also many dissections and cross sections have been added. A fine set of moist brain preparations prepared by Professor McCarthy has been added to the museum, also a set of bones showing epiphyses at various ages, and models of perineum, neck, abdomen and lungs, obtained from Steger and others; some fine anthropoid and other typical skeletons have been purchased; also models of various primitive skulls. Many new cross sections of abdomen and chest; also a series of sections of brain *in situ* and preparations of the brain with spinal cord attached have been added quite recently. Specimens of bones, organs, etc., are always on exhibition for the use of students, who can make use of them for special study.

MUSEUM OF HYGIENE.

DIRECTOR:—PROF. T. A. STARKEY.

This Museum has been established from the interest accruing through the endowment of the Chair of Hygiene by Lord Strathcona and Mount Royal in 1893.

The material in the museum has been rearranged with a view to exhibiting not only specimens of the best and most approved types of appliances in each particular branch of public health, but also examples of types which are to be avoided on hygienic principles.

In choosing the various exhibits, the chief idea has been always to make each specimen a "type" of a class. This has been done for two reasons—first, in order to keep the collection within reasonable limits, and, secondly, to avoid repetition as far as possible.

This method of dealing with "types" of classes, will prove of more value to the student of hygiene, than the individual consideration of numberless specimens of each class—for in studying the "type," special attention must be paid to the "working principles" of the class—which principles can be applied to any particular specimen.

In this way, a more lasting and serviceable impression is created in the mind, than by a cursory examination of a multitude of specimens, all exhibiting the same working principles with slight modifications in each case.

In order to facilitate study and reference, the specimens have been classified upon a decimal system under the following sections:—

1. *Disinfection.*—Including disinfecting apparatus of all kinds, disinfectants and antiseptics.

2. *Lighting and Heating.*—Showing contrivances used for these purposes.

3. *Water.*—Showing conditions connected with pollution of water supplies, whether derived from the surface or underground sources; methods of purification on large and small scales; water pipes, etc., and the influence which these fittings may exert upon the water contained therein.

4. *Soils and Buildings.*—Building sites,—various kinds of soils; relation between soil and dampness; permeability of soils to gases and water; composition of soils. Effects of ground moisture on dwellings; measures to be taken against dampness and foul air; and building materials of all kinds.

5. *Air.*—Including ventilation schemes and appliances; climate and meteorology, with apparatus illustrative of each class.

6. *Foodstuffs.*—Adulterations and sophistications practised. Samples of unsound foodstuffs.

7. *Bacteriological and Pathological.*—Specimens of diseased meats; specimens and slides of all the common micro-organisms, pathogenic and non-pathogenic.

8. *Clothing.*—Specimens of all the materials utilized for the manufacture of clothing, showing the raw state and the various processes through which they pass until the finished product is reached. The hygienic value of these various articles.

Injuries and deformities which may directly result from the use of badly designed articles of clothing. History and evolution of clothing.

9. *Drainage and Refuse Disposal.*—This section includes every type of appliances used as sanitary fixtures in buildings; drainage schemes; ultimate disposal of refuse both liquid and solid,—refuse destructors, and sewage disposal plants. The section also includes types of faulty methods and appliances which on principle ought to be avoided.

In addition to the regular museum exhibit, there is a collection of over 1,000 lantern slides illustrative of phases of hygiene. The slides have been so arranged as to be available for demonstrations as hand specimens.

A catalogue with text and full description of all the exhibits contained in the Museum is issued by the University authorities, and may be purchased at the general office.

PATHOLOGICAL MUSEUM.

DIRECTOR:—PROFESSOR J. G. ADAMI.
CURATOR:—MAUDE E. ABBOTT, B.A., M.D.
ASSISTANT CURATOR:—JOSEPH KAUFMANN, M.D.
OSTEOLOGIST AND PREPARATOR:—E. L. JUDAH.

Since the organization of the Medical Faculty the Pathological Museum has been one of its most cherished objects. Some specimens still remain upon its shelves donated by the founders of the College (notably a unique case of Cor. Biatriatum Trioculare, reported by Dr. Andrew Holmes in 1823), and for the last fifty years the rich pathological material furnished by the Montreal General Hospital has been collected here. An abundance of material is also now received

yearly from the Royal Victoria Hospital, and the Faculty is indebted to many medical men throughout Canada and the United States for important contributions.

The fire of 1907 did severe damage to the Museum and its contents, but, fortunately, the loss sustained was not a total one, about one-third of the material, including many specimens of the greatest historic, as well as medical interest, having been saved. Thus the singularly rich collection of disturbances of the heart and vascular systems and of aneurisms, have been preserved intact, as well as the specimens illustrating the medical pathology of the respiratory, digestive, urinary, and nervous systems. To this nucleus a large number of new specimens have been added, so that the collection already exceeds, both numerically and in teaching value, the material destroyed. Among the many donors who contributed directly to the repair of the losses sustained must be remembered the Army Medical Museum, Washington; Professor J. Orth, Berlin, Germany; Dr. F. W. Andrews, of St. Bartholomew's Hospital, London; and the many donations received from other foreign sources through the International Association of Medical Museums. In addition, the many specimens constantly supplied by the Montreal hospitals (chiefly the Montreal General and Royal Victoria Hospitals), the improved methods of preparing and mounting pathological material, the constant activity of the Museum staff, and the fine new building in which the collections are housed, are factors which, together, make the new Museum superior in every way to the one which it has perpetuated as well as replaced.

The rich material of the Museum is very actively used for clinico-pathological teaching, which is made one of the chief features of its administration. Illustrative specimens are supplied to College lecture rooms and to Hospital clinics, and routine demonstrations are given within the Museum to successive groups of students from the fourth and fifth years regularly, throughout the session.

THE PETER REDPATH MUSEUM.

HONORARY CURATOR:—PROF. ARTHUR WILLEY.

The large and valuable collections in botany, zoology, mineralogy and geology are arranged in such a manner as to facilitate the work in these departments.

The general arrangement is as follows:—

1. The Botanical Room on the ground floor contains the herbarium, consisting of 50,000 specimens of Canadian and exotic plants and collections illustrating structural and economic botany.

2. On the first floor is a room over the entrance hall, in which are cases containing archæological and ethnological objects, including collections from the Queen Charlotte Islands, from Egypt, and from West Africa.

3. This room opens into the great Museum Hall, on each side of which are alcoves with upright and table cases containing the collection in palæontology arranged primarily to illustrate the successive geological systems, and subordinately to this, in the order of zoological and botanical classification, so as to enable the student to see the general order of life in successive periods, and to trace any particular group through its geological history.

4. At the extreme end of the hall are placed the collections of minerals and rocks, arranged in such a manner as to facilitate their systematic study. In the centre of the hall are economic collections and large casts and models.

5. In the upper storey or gallery of the great hall are placed the zoological collections; the invertebrate animals in table cases in regular series, beginning with the lower forms; the vertebrate animals in upright cases, in similar order. THE PHILIP CARPENTER COLLECTION of shells is especially noteworthy for its arrangement and completeness.

Papers or memoirs relating to certain type specimens in the collections can be obtained from the Assistant Curator. Classes of pupils from schools can be admitted on certain days under regulations which may be learned from the professors or from the Registrar of the University.

3. WORKSHOPS.

The Workshops, erected on the Thomas Workman Endowment, have a floor area of more than 20,000 square feet.

Equipment.—The Carpenter Shop and the Pattern Shop contain thirty-eight carpenters' and pattern-makers' benches complete with the necessary sets of hand tools, twenty-two wood-turning lathes with their turning tools, a large pattern-makers' lathe for faceplate work, one circular-saw bench, a jig-saw, a band-saw, two wood-trimmers, a surface-planer, a thickness planer, a mortising machine, a saw-sharpener, and one universal wood-working machine.

The Smith Shop is provided with twenty Sturtevant forges, which are power-driven and are connected with an exhaust fan. There is a power hammer, and the necessary equipment of anvils, swage blocks, sets, flatteners and other tools. Provision is made for instruction in soldering and brazing.

The Foundry has benches, tools and apparatus for bench and floor moulding and core-making, and is able to accommodate twenty students. A gas-fired brass melting furnace, a cupola for melting iron, and the necessary core-ovens and core-benches give facilities for undertaking iron foundry work in green and dry sand, and for brass moulding. The shop is served by a hand travelling crane of one ton capacity.

The Machine Shop has twelve 18-inch engine lathes, one 18-inch turret lathe fitted for stud and screw making, one 27-inch engine lathe, one 72-inch surfacing lathe, one brass-finishing lathe, one 36-inch vertical drilling machine with compound table, one universal milling machine with vertical milling attachment and dividing head-stock, one planer capable of taking work up to 24″ x 24″ x 5 ft., one 9-inch slotting machine, one 16-inch shaper, one universal grinding machine, centering machine, a cutter grinder, a tool grinder, and a buffing and emery grinding machine. There are vise benches for eighteen students, with the necessary hand-tools, and a marking-off table. The tool-room contains a full equipment of drills, reamers, milling cutters, and accessories, gauges, calippers, and other measuring instruments.

All the machinery in the workshops is driven electrically by motors taking power from the generating station in the Macdonald Building.

REGISTER OF STUDENTS.

SESSION 1914-1915.

FACULTY OF ARTS.

FIRST YEAR

(McGill College.)

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
*Allan, Hugh	Montreal, Que	Eton College, Eng.
Allen, Norman Burke	Toronto, Ont	Trinity College School Port Hope, Ont.
Antliff, William Shaw	Montreal, Que	Montreal High School.
Armstrong, Francis Edwin	Shawville, Que	Albert College, Belleville Ont.
*Armstrong, Rinaldo William	Shawville, Que	Albert College, Belleville
Avner, Jules	Boston, Mass	
Beaubier, David Horner	Brandon, Man	Brandon Collegiate.
*Beckley, Chris. J	Montreal, P.Q	
Bernstein, Felix	Montreal, Que	Montreal High School
*Biddulph, Reginald Vivian	Montreal, Que	
Bieler, Philippe Alfred	Westmount, Que	Stanstead College, Stanstead, Que.
Binmore, Thomas Victor	Outremont, Que	Montreal High School.
Black, Allan Harcourt	Montreal, Que	Bishop's College School, Lennoxville, Que.
Blampin, Wilfrid Ellis	South Roxton, Que	Granby High School.
Branch, John Reginald A	Antigua, B.W.I	The Grammar School.
Burland, George Harold	Ottawa, Ont	Ottawa Collegiate.
Calder, William McClure	Lachute, Que	Lachute Academy.
Callaghan, John P	Montreal, Que	Shortell's Academy.
Cameron, George Mansfield	Adamsville, Que	Cowansville Academy.
Campbell, Culbert William	Montreal, Que	Montreal High School.
*Campbell, Geo. D	Woodville, Ont	
*Campbell, Grant Sutherland	Richmond, Que	St. Francis Coll. H. S., Richmond, Que.
Campbell, James Ellis	Cornwall, Ont	Cornwall High School.
Carlin, Owen Gordon M	Westmount, Que	Catholic High School.
Cate, Eldridge	Sherbrooke, Que	Stanstead College, Que.
Chisholm, Jack Foster	Westmount, Que	Lake Lodge School, Toronto, Ont.
Christie, J. H. H	Ballynahinch, Ireland	Wesley, Dublin, Ire.
Cohen, Jacob	Montreal, Que	Montreal High School.
Common, Ernest Cameron	Westmount, Que	Wykeham House, Westmount.
*Coughlan, Gerald D	St. John's, Nfld.	
Craik, Oliver Stanley	Melbourne, Que	St. Francis College H.S., Richmond, Que.

*Partial.

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Cross, George Carmichael.	New Westminster, B.C.	New West. High School.
*Cumming, Edwin Charles.	London, Eng.	
*Davis, Charles F	Freshwater, Nfld.	
Davies, John Howard	Blackheath, S.E. Eng.	Private Tuition.
Dawson, H. LeRossignol	Westmount, Que.	Westmount Academy.
Dawson, Stephen Arthur	St. Stephen, N.B	St. Stephen H. School.
Docks, Rube George	Montreal, Que	Comm. & Tech. H. S.
Dyson, David	St. George, Ont	Albert College, Belleville, Ont.
Eliasoph, Benjamin	Quebec	Quebec High School.
Elliott, James Munro	Carnduff, Sask	Moosejaw College, Sask.
Farthing, John Colborne	Montreal, Que	Lower Canada College.
Flanders, Mendel,	Montreal, Que	Comm. & Tech. H. S.
Gibb, Alexander Clarke	Montreal, Que	Wykeham House School, Westmount.
*Gillis, Archibald	Bradalbane, P.E.I.	
Gillis, Ewen	Bradalbane, P.E.I.	
Glickman, Lazarus T.	Montreal, Que	Montreal High School.
Goldwater, William	Lachute, Que	
Graham, Robert James E.	Belleville, Ont	
Green, Varian S	Calgary, Alta	Mt. Royal College, Calgary.
Grosjean, George Francois	Presbyterian College.	Montreal.
Hall, Robert	Cornwall, Ont.	Cornwall, High School.
Harrower, Gordon S	Montreal, Que	Lower Canada College.
*Hawley, Will Ashley	Derbyshire, Eng.	
Henry, Leslie Stewart	Montreal, Que	Montreal High School.
Henry, Wallace Ross	Strathcona, Alta.	Montreal High School.
Herring, Reginald Wilfrid.	Montreal, Que	London Collegiate, London, Ont.
Hersey, Eric M.	Westmount, Que	Hackley School, Tarrytown, N. Y.
Hetherington, Cecil Henry.	Heyworth, Que.	Aylmer Academy, Aylmer, Que.
Hoare, Edward Stewart	Quebec, P.Q	Quebec High School.
*Holmes, James	Verdun, Que	
Howard, William S	Sherbrooke, Que.	Stanstead College, Stanstead, Que.
Hutchison, Matthew Howard,	Westmount, Que.	Wykeham House School, Westmount, Que.
Ironstone, Paul Stanley.	Sudbury, Ont	Private Tuition
Kneeland, C. R.	Montreal, Que	
Knighton, George Henry.	Montreal, Que	Mont'l. Theo. College Matric. Classes.
Lande, Joseph.	Montreal, Que	Montreal High School.
Laurie, Harry Garvin	Montreal, Que	Ridley College, St. Catharines, Ont.
Lehrer, Moe Harrison	Montreal, Que	Com. & Tech. High School.
Leiter, Louis	Montreal, Que	Montreal High School.
Levitt, Ephraim	Montreal, Que	Private Tuition

*Partial.

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Lindsay, Kenneth Raymond,	Montreal, Que. . .	Stanstead College, Stanstead, Que.
*Livingstone, Henry Edward,	Belturbet, Ireland.	
*McCurlie, John M.	Castor, Alta.	
McGibbon, Archibald D. . .	Lachute Mills, Que.	Lachute Academy.
McGreer, Edgar D'Arcy. . .	Montreal, Que.	Montreal High School.
MacKellar, Duncan William,	Glencoe, Ont.	Glencoe H. S.
MacLennan, Malcolm.	Scotstown, Que.	Inverness Academy.
MacLeod, Kenneth D.	Ste. Anne de Bellevue, Que.	Macdonald College Academy.
*Manseau, Charles Francois.	Montreal, Que.	Lycée, en France.
Martin, Richard Hannan. .	Ogdensburg, N.Y. . .	Loyola College, Mont'l.
Matthews, John Kerr.	Caughnawaga, Que.	
Merrett, Edward Stuart. . .	Montreal, Que.	
Mills, James William.	Ormstown, Que. . . .	
*Meyers, John George.	Haslingden, Lancs.,	England.
Neumann, Harold.	Montreal, Que.	Montreal High School.
Nicholson, James Gordon. .	Westmount, Que. . .	Westmount Academy.
*O'Neil, Hugh L.	New York City. . . .	
*Orkin, Edward Jacob.	Westmount, Que. . .	
*Page, Stanley Charles.	Plymouth, Eng.	
*Paley, William.	Allerton, Bywater,	Eng.
*Parkes, Robert Henry.	Belfast, Ireland. . . .	
Patterson, R. M.	Frankford, Ont.	
*Penney, Hugh.	Notre Dame de Grace,	Que.
*Pike, Stephen John.	Carbonear, Nfld. . . .	
Presner, Philip.	Montreal, Que.	Montreal High School.
Reid, Archibald Newton. . .	Hemmingford, Que.	Presbyterian College, Montreal, Que.
*Richards, Arch. Loveluck, . .	Maestey, South Wales.	
Ross, Ian Alexander.	Montreal, Que.	Westmount Academy.
Rutherford, John Bulmer. .	Westmount, Que. . .	Westmount Academy.
Scott, Horace Evelyn.	Quebec, Que.	Quebec High School.
Seller, John Douglas.	Richmond, Que. . . .	Lachine Academy, Lachine, Que.
Shaw, James A.	Outremont, Que. . . .	
Shulemson, Abraham	Montreal, Que.	Montreal High School.
Slessor, James Eric.	Westmount, Que. . .	Westmount Academy.
Smart, Robt. Alex. Grant. .	Lachine, Que.	Lachine Academy.
Smith, Arthur.	Montreal, Que.	Huntingdon Academy.
Snetsinger, Wilfrid L. G. . .	Moulinette, Ont. . . .	
Snyder, Charles William. . .	St. Lambert, Que. . .	Oakville High School, Oakville, Ont.
Soper, Walter Eddy.	Ottawa, Ont.	"Studyvera", Ottawa,
*Storey, Herbert Barrett. . . .	Hamilton, Ont.	
Strean, George.	Montreal, Que.	Montreal High School
*Sutherland, Angus.	Sutherlandshire,	Scotland.
Sutherland, Elliot.	Montreal, Que.	Lower Canada College.
Sutherland, William.	Montreal, Que.	Lower Canada College.
Spencer, Rupert.	Montreal, Que.	Lower Canada College.
*Taylor, Richard Hayward. .	Montreal, Que.	
Taylor, Robert Donald. . . .	Westmount, Que. . .	Westmount Academy.

*Partial.

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Terroux, Arthur	Montreal, Que	Catholic High School.
Thomas, Ernest Ormsbee	Huntingdon, Que	Huntingdon Academy.
Tousaw, Albert Anderson	Montreal, Que	Montreal High School.
*Ulley, James A	Montreal, Que	
Usher, Saul J	Montreal, Que	Comm. & Tech. H. S.
Walsh, Maurice C	Outremont, Que	St. Kevin's School
*Watson, William C	Cobourg, Ont	
White, Harold	Shipley, York., Eng	Albert Coll., Belleville, Ont.
White, Patrick Joseph	Montreal, Que	St. Ann's Academy.
Wonham, Hugh Edward	Westmount, Que	Lower Canada College.
Wright, Edward Shirreff	Woodstock, N.B.	
Younger, George R	Westmount, Que	Montreal High School

(Royal Victoria College.)

Bates, Hazel E. R.	Sutton, P.Q.	Sutton Academy.
*Black, Dora I	St. Johns, P.Q.	St. Johns High School.
Boyd, Bernice Eleanor	Westmount, P.Q.	Montreal High School.
Cameron, Sarah Symonds	Sydney, C.B.	
Cherry, Anna	Toledo, Ohio.	Moulton College, Toronto
Church, Muriel	Westmount, P.Q.	Montreal High School.
Cream, Ruth Elder	Quebec, P.Q.	Quebec High School.
*Darling, Winifred C.	Westmount, P.Q.	
Duff, Ella Ishbel	Worcester, Mass.	Worcester Classical H. S.
*Figler, Sarah	Montreal, P.Q.	
*Fitch, Rebecca	Quebec, P.Q.	
Forde, Roberta Napier	Montreal, P.Q.	Westmount Academy.
Fowler, Lois Rowcliffe	Summit, N.J.	Kent Place School, New Jersey.
Gardner, Jessie Grace	Montreal, P.Q.	Montreal High School.
*Goldstein, Gladys	Montreal	
Goodwin, Ruth Annie	Westmount, P.Q.	Westmount Academy.
Graham, Elsie	North Bay, Ont.	North Bay High School.
Gray, Ethel Marguerita	Montreal, P.Q.	Montreal High School.
Greer, Frances Burriss	Westmount, P.Q.	Westmount Academy.
Hay, Eleanor Clunie	Lachute, P.Q.	Lachute Academy.
Hay, Mary Cameron	Lachute, P.Q.	Lachute Academy.
Hurd, Mary E.I.	Westmount, P.Q.	Westmount Academy
*Kellnor, Esther	Westmount, P.Q.	
Kuhns, Alma Marie	Montreal, P.Q.	Private Tuition.
*Kuhns, Ivel Vera	Montreal, P.Q.	
*Lafleur, Violette C.	Montreal, P.Q.	
*Livingstone, Clarice Margaret	Washington, D.C.	
*McFarlane, Jean Sheila	Montreal, P.Q.	
*MacIntosh, Jean Marion	Montreal, P.Q.	Montreal High School.
McLean, Melba Roberta	Outremont, P.Q.	Strathcona Academy.
*Michaels, Elsie M.	Westmount, P.Q.	
Patterson, Ida May	Lachute, P.Q.	Lachute Academy.
*Popliger, Bella	Montreal, Que	
Potter, Anna Victoria	Montreal, P.Q.	Strathcona Academy.
Prowse, Grace Emily	Verdun, P.Q.	Verdun Academy.

*Partial.

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Reeve, Marjorie Frieda	Outremont, P.Q.	Strathcona Academy.
Rogers, Ruth	Patten, Me	Patten Academy.
Salomon, Fanny	Montreal, P.Q.	Montreal High School.
*Savage, Helen Galt	Montreal, P.Q.	
*Simpson, Florence Martha	Montreal, P.Q.	Montreal High School.
Solomon, Sallie G.	Montreal, P.Q.	Montreal High School.
Stafford, Minerva	Montreal, P.Q.	Flesherton High School.
Stafford, Valeria	Montreal, P.Q.	Flesherton High School.
Stamm, Bessie Gertrude	Norwich, Conn.	Norwich Free Academy.
Teskey, Evelyn	Westmount, P.Q.	Private Tuition.
Walker, Florence	Sydney, N.S.	
Windsor, Gladys Victoria	Bedford, P.Q.	Bedford Academy.

SECOND YEAR

(*McGill College.*)

NAME	HOME ADDRESS
Aird, William Hugh	Westmount, P.Q.
Allan, Thoburn Stephens	Calgary, Alta.
*Allenby, Herbert	St. John s, Nfld.
*Banfield, Frederick Percy	Winnipeg, Man.
Banfield, William Bickle	Winnipeg, Man.
Beattie, John Donald M. B	Montreal, P.Q.
Beattie, William Walter	Montreal, P.Q.
*Beckwith, Alfred Edward	Victoria, B.C.
Benjamin, Ben	Montreal, P.Q.
Biggar, Winchester Henry	Montreal, P.Q.
Bourke, George Wesley	Montreal, P.Q.
Campbell, Arthur Bates	Cornwall, Ont.
Cassidy, Halton C	Montreal, P.Q
Caverhill, George Rutherford	Montreal, P.Q.
Clark, Peter Archibald G	Three Rivers, P.Q.
*Davison, Sidney	Great Ayton, Yorks, Eng.
Dobson, Robert Munro	Montreal, P.Q.
Dunton, Wilson E	Montreal, P.Q.
Foran, Herbert Paul	Montreal, P.Q.
Fowler, Grant McAllister	Westmount, P.Q.
Friedman, Eli Maurice	Massena, N.Y.
Gallagher, Cedric Aubrey W	Winnipeg, Man.
Gallay, Abraham	Montreal, P.Q.
*Gardner, Robert Currie	Hamilton, Ont.
*Graham, John Joseph	Montreal, P.Q.
*Grandy, William M	Fortune Bay, P.Q.
Grier, James	Ramelton, Ireland.
Harris, Hugh R. Dale	Ottawa, Ont.
Hawthorne, Allan Blackwell	Westmount, P.Q.
*Herbison, James Campbell	Cullybackey, Ireland.
Heron, Alvin William	Montreal, P.Q.
Herzberg, Otto Wilfrid	Westmount, P.Q.
Holling, Stanley A	Brantford, Ont.
Hutchison, Ross Rutherford	Montreal, P.Q.

*Partial.

NAME	HOME ADDRESS
Hyde, Duncan Clark	Quebec, P.Q.
*Johnston, William John	Portadown, Ireland.
Jordan, Julian	Barbados, B.W.I.
Keir, Robert William	Riverfield, P.Q.
Kilgour, J. Rowland	Beauharnois, P.Q.
Lalanne, James Arthur	Brownsburg, P.Q.
Latham, J. Arthur	Montreal, P.Q.
*LeBel, Joseph Onesime	Tourville, P.Q.
McCabe, Charles Penny	Pictou, N.S.
McCormack, G. J.	London, England.
McCreary, S. Russell	Belleville, Ont
MacDermot, Terence William L	Montreal, P.Q.
Mackay, Reay	St. John, N.B.
McKenzie, T. Cuyler	Charlottetown, P.E.I.
*McKirdy, William Hamilton	Montreal, P.Q.
McLellan, Wilfrid Gillis	Montreal, P.Q.
McLennan, Guy Smart	Lancaster, Ont.
McLeod, Donald William	McCrimmon, Ont.
McLeod, John Malcolm	Summerside, P.E.I.
*McNaught, Tom	Montreal, P.Q.
Magor, Gerald Atkinson	Westmount, P.Q.
Mathewson, Kenneth	Montreal, P.Q.
Maxwell, Gordon N.	Seeley's Bay, Ont.
Mazur, William Mortimer	Montreal, P.Q.
Morgan, Hamilton Richard	Brockville, Ont.
O'Heir, Hugh Bingham	Hamilton, Ont.
O'Meara, Robert Stewart	Victoria, B.C.
Paterson, Alexander	Montreal, P.Q.
*Pollitt, Peter	Manchester, England.
Proudfoot, David Gibb	Montreal, P.Q.
Purcell, John Merritt	Huntingdon, P.Q.
Reynolds, Albert Newton	Montreal, P.Q.
Ritchie, Thomas E.	Aylmer, P.Q.
Robinson, Eric Lindsay	Maisonneuve, P.Q.
Robb, Alexander Vallance	Glasgow, Scotland.
Shaer, Harry	Montreal, P.Q.
Stuart, William Charles	Hoboken, N.J.
Throop, Wilfrid Earle	Brockville, Ont.
*Topping, C. Wesley	Perth, Ont.
Towers, Graham Ford	Montreal, P.Q.
*Trebble, James	St. John's, Nfld.
Viner, Abraham K.	Montreal, P.Q.
*Waterman, Albert J.	Change Islands, Nfld
Wetstein, Harris	Westmount, P.Q.
*Wilding, George Harold	Prince Albert, Sask.

(Royal Victoria College.)

Baker, Kathleen C.	Montreal, P.Q.
Dawson, M. Ruth	Westmount, P.Q
Drabkin, Bertha	Montreal, P.Q.
Duval, Elsie Charlotte Manners	St. Johns, P.Q.
Elliott, Jessie Bruce	Carnduff, Sask.

*Partial.

NAME	HOME ADDRESS
Fletcher, Marjorie May	Helena, N.Y.
Fraser, Bessie Fairbairn	St. Johns, P.Q.
Gittleson, Gertrude	Westmount, P.Q.
Hicks, Dorothy Gwendoline	St. Lambert, P.Q.
*Holland, Evelyn Pauline	Westmount, P.Q.
Howe, L. Isabel	Montreal, P.Q.
Irwin, Lilian Doris	Montreal, P.Q.
Kelly, Helen L	Huntingdon, P.Q.
Kilgour, Florence Tredwell	Beauharnois, P.Q.
Klein, Jennie	Montreal, P.Q.
*Lambert, Helen Theodora	Westmount, P.Q.
McCloskey, Kathleen	Chesterville, Ont.
Melvin, Margaret Georgiana	St. John, N.B.
*Michaels, Violet	Montreal, P.Q.
Muir, Mary Dale	Lauder, Man.
Newnham, May Louise	Prince Albert, Sask.
Patton, I. Jocelyn	Montreal, P.Q.
Popliger, Mary	Montreal, P.Q.
*Porter, Elizabeth Bonsall	Montreal, P.Q.
Price, Enid Margaret	Westmount, P.Q.
Savage, Gladys H	Granby, P.Q.
*Sherwood, M. W. (Mrs)	Westmount, P.Q.
Smith, Letha A	Mystic, P.Q.
Spier, Marjorie	Westmount, P.Q.
Symons, Jennie Laura	Waterloo, P.Q.
Taylor, Kathryn R	Westmount, P.Q.
*Wilson, Helena	Westmount, P.Q.
*Wolhaupter, Josephine	Washington, D.C.
Wyatt, Wanda Lefurgey	Summerside, P.E.I.

THIRD YEAR.

(*McGill College.*)

*Allan, George R	Crieff, Scotland
Armstrong, Wilmer Coulter	Shawville, P.Q.
Atkins, John Allen	Ingrow, England.
Barrett, John Edisforth P	Westmount, P.Q.
*Beagley, Thomas G	
*Briegel, Walter Oscar	Montreal, P.Q.
Brown, Colin Irvine	Quebec, P.Q.
*Burton, Garland G	Greenspond, Nfld.
Bunt, William Percy	Collingwood, Ont.
Chauvin, Edward H	Montreal, P.Q.
Clark, Cuthbert N	Vancouver, B.C.
Clark, Robert J	Vancouver, B.C.
Cliff, Ernest Howard	Montreal, P.Q.
Copeland, John Gardner	Cornwall, Ont.
*Craik, Frederick William	Thamesville, Ont.
Crawford, Edwin Minter	Montreal, P.Q.
Diner, Louis	Montreal, P.Q.
Donald, Frederick Cecil	Montreal, P.Q.
*Doak, Ernest Everett	Madison, California.
Everett, Herbert Stewart	St. Andrews, N.B.

*Partial.

NAME	HOME ADDRESS
Fisher, Philip Sydney	Montreal, P.Q.
Fleck, William Westwood	Montreal, P.Q.
Gardner, Adolph	Quebec, P.Q.
Gillanders, John Reid	Lemesurier, P.Q.
Gordon, John Keith	Winnipeg, Man.
Grigg, Alec Phelps	Montreal, P.Q.
*Hall, John Smythe, B.Sc	Montreal, P.Q.
Harold, Joseph James	Montreal, P.Q.
Hart, Henry Harper	Montreal, P.Q.
Hatcher, William Hooker	St. John's, Nfld.
Heslam, Gordon H	Sweetsburg, P.Q.
Hibbard, Charles Ambrose Lane	Montreal, P.Q.
Howard, Waldorf Vivian	Montreal, P.Q.
Hutchison, Paul P	Westmount, P.Q.
Jones, Thomas William	Oxford, England.
*Long, William E	Montreal South, P.Q.
*Lordly, Herman Albert	St. John, N.B.
MacArthur, Robert Alexander	Detroit, Mich.
McCrudden, Harry E	Montreal, P.Q.
Macfarlane, Joseph Harrison	Westmount, P.Q.
*Mackay, John	St. Davids, Ont.
McKenzie, Charles Russell	North Sydney, N.S.
McNeill, Chester Wilson	Vancouver, B.C.
*MacNeily, William Henry	MacNeily's, N.S.
*Mercer, George Lionel	Bay Roberts, Nfld.
*Mercer, Robert French	Bay Roberts, Nfld.
Myerson, Moses Hyman	Montreal, P.Q.
*Norman, W. H	Minehead, England.
Parkins, Gerald Adams	Montreal, P.Q.
Planche, L. Stuart	Cookshire, P.Q.
Pope, Alexander McKean	Avoca, P.Q.
Ralston, Harold E	Knowlton, P.Q.
Rosevear, Alfred Beatty	Winnipeg, Man.
Sanders, Joseph Leonard	Ottawa, Ont.
Schofield, J. Harper	Freeman, Ont.
Schwartz, Bennie Alfred	Quebec, P.Q.
Schwartz, Bernard	Montreal, P.Q.
Scott, Robt, DeWitt	Montreal, P.Q.
Sigler, Max Isidore	Montreal, P.Q.
Steed, Joseph Arthur	Montreal, P.Q.
*Swan, William	Montreal, P.Q.
*Tanner, Henry Emmanuel	Montreal, P.Q.
Tidmarsh, Clarence J	Charlottetown, P.E.I.
Wieland, Walter Andrew	Westmount, P.Q.
*Wright, William Edward	Philipsburg, P.Q.
Yampolski, Moses	Montreal, P.Q.
Young, Elrid Gordon	Westmount, P.Q.

(Royal Victoria College.)

Block, Ethel	Westmount, P.Q.
Burrell, Pearl Robins	Outremont, P.Q.
Cameron, Margaret Mary	Sydney, N.S.

*Partia'.

NAME	HOME ADDRESS
Corner, Mabel E	Outremont, P.Q.
Currie, Mary Elizabeth	Perth, Ont.
Douglas, Allie Vibert	Westmount, P.Q.
*Fleisig, Ray	London, England.
Fraser, Helen	St. John s, Nfld.
*Gibb, Margaret Murray	Westmount, P.Q.
Gray, Ethel	Montreal, P.Q.
Henry, Ethel Plant	Westmount, P.Q.
*MacAdam, Hazel C	Notre Dame de Grace, P.Q
McCall, Marion	Montreal, P.Q.
McCallum, Cecil Olga	Westmount, P.Q.
McCaw, Gladys W	Montreal, P.Q
McDonald, Grace	Montreal, P.Q.
Melvin, Alice	St. John, N.B.
Paterson-Smyth, Jessie	Montreal, P.Q.
*Pearce, Amy, (Mrs)	Montreal, P.Q.
Seiden, Antonia	Montreal, P.Q.
Shearing, Ruth Merrill	Montreal, P.Q.
Talpis, Sarah Kathleen	Montreal, P.Q.
Tees, Frances Myrtle	Montreal, P.Q.
Weinfeld, Rachel	Montreal, P.Q.
Younger, Annie, C	Montreal, P.Q

FOURTH YEAR

(*McGill College.*)

Ballantyne, Linton H	Westmount, P.Q.
*Beatty, Harry C	Stanbridge East, P.Q.
Bernstein, Ben	Montreal, P.Q.
Beveridge, William Wentworth	Vancouver, B.C.
Bieler, Etienne Samuel	Westmount, P.Q.
Bloomberg, Max W	Montreal, P.Q.
*Bridgman, Randolph H	Westmount, P.Q.
Burn, G. Drummond	Ottawa, Ont.
Clark, Paul Somerville	Westmount, P.Q.
Cohen, Horace R	Westmount, P.Q.
Dean, Joseph Russell	Clarenceville, P.Q.
Denny, Joseph	London, England.
Dilworth, Ira	Victoria, B.C.
Donaghue, David J	Montreal, P.Q.
Duclos, Victor E	Westmount, P.Q.
Fraser, Robert Adam	Montreal, P.Q.
Gibb, Stewart Hilson	Westmount, P.Q.
Giles, Elmer Stewart	Lachute, P.Q.
Gillanders, Henry Edwin	Lemesurier, P.Q.
Goldwater, Charles	Montreal, P.Q.
Jess, John A	Dramara, Ireland.
Johnston, Morgan M	Montreal, P.Q.
Kaufman, Judah	Montreal, P.Q.
Kemp, William Norman	Vancouver, B.C.
Kennedy, Thomas Elmer	Ripley, Ont.

*Partial.

NAME	HOME ADDRESS
Levine, Lyon	Montreal, Que.
Lockyer, Arthur Leonard	Vancouver, B.C.
McCreery, Paul Leonard	Vancouver, B.C.
McDonald, Dawson A	Montreal, P.Q.
McLean, John James Millar	Vancouver, B.C..
McMullan, Stanley	Tatehurst, P.Q.
Macnaghten, Ronald F	Vancouver, B.C.
McNaughton, John Leslie	St. Raphael West, Ont.
Manning, Clinton Edgar	Magog, P.Q.
*Matheson, Cornelius Kelly	Sinclair, Man.
*Mills, John Sproule	Londonderry, Ireland.
Moran, James	Blackhead, Nfld.
O'Halloran, Melbourne	Ottawa, Ont.
Oliver, Allen	Ottawa, Ont.
Oughtred, Clifford T	Marbleton, P.Q.
*Oulton, John Roderick	Winnipeg, Man.
Parkes, A. John R	Sherbrooke, P.Q.
Quin, Frank Ashton	St. Croix, D.W.I.
Reid, George E	London, Ont.
Rexford, Orrin B	Montreal, P.Q.
Ritchie, Rae George	Kelowna, B.C.
Robertson, James Hilary Hume	Montreal, P.Q.
Ross, William Cameron	Victoria, B.C.
Sargent, Rev. Agler	Vancouver, B.C.
Scriver, Walter de Mouilpied	Westmount, P.Q.
Skinner, Donald Chipman	St. John, N.B.
*Stavert, Reuben Ewart	Montreal, P.Q.
Taylor, William Scott	Invergordon, Scotland.
Upham, George Ashton	150 Mile House, B.C.
Warneford, Francis Henry Sweeting	Antigua, B.W.I.
Werry, Royal Ernest Carl	Montreal, P.Q.
Withey, Albert Nightingale	Montreal, P.Q.
Wornell, William Padden	St. John's, Nfld.
Yeo, Emsley Lewis	Victoria, B.C.

(Royal Victoria College.)

Bennetts, Marjorie Florence	Ottawa, Ont.
Bollert, Lillian Grace	Vancouver, B.C.
Boyd, Jessie Marion	Westmount, P.Q.
Braidwood, Dora C	Montreal, P.Q.
Brockwell, Muriel Adelaide	Vancouver, B.C.
Childs, Mary	Montreal, P.Q.
Demuth, Lillie	Grand Forks, B.C.
*Dillon-Lawrence, Beatrice	Westmount, P.Q.
Dyke, Millicent Auber	Westmount, P.Q.
*Erdrich, Fanny L	Montreal, P.Q.
Hardy, Netta	North Vancouver, B.C.
Harvey, Mary G	Montreal, P.Q.
*Huntly, Ruth Helena	Searcy, Arkansas.
McCaw, Isabel Catherine	Longueuil, P.Q.
Macdonald, Lennie Hay	Vancouver, B.C.

*Partial.

NAME	HOME ADDRESS
Macoun, Mary	Ottawa, Ont.
MacLennan, Mary Muriel Currie	Chateauguay Basin, P.Q
Mitchell, Grace Elizabeth	Lachine, P.Q.
Murray, Doris Audrey	St. John, N.B.
O'Meara, Kathleen Marian Newton	Victoria, B.C.
Percival, Eleanor	Westmount, P.Q.
Purdy, A. P.	Waterloo, P.Q.
Smith, Catherine	Vancouver, B.C.
Smith, Zoe B.	Sudbury Ont.
Snyder, Daisy Mary Louise	St. Lambert, P.Q.
*Snyder, Eva Carrie	St. Lambert, P.Q.
Sperber, Sara	Montreal, P.Q.
Story, Gladys Victoria	Vancouver, B.C.
*Thompson, Jessie Isabel	Montreal, P.Q.
*Viner, Bessie	Montreal, P.Q.
Waterman, Rosalie Agnes	St. John, N.B.
White, Laura Mae	Vancouver, B.C.

*Partial.

DEPARTMENT OF MUSIC.

Proceeding to the Degree of Mus. Bac.

FIRST YEAR

Smithson, William
Martin Helen
Scovil, Helen C.

SECOND YEAR

Common, M. Alice G.
Friedman, Sara
Norman, Nora J.

THIRD YEAR

Armstrong, Dorothy F.L.
Rothschild, Dora.

Proceeding to the Diploma of Licentiate in Music.

FIRST YEAR

Allder, Mary
Keir, Margaret.
Macdonald, Jean
Rexford, Muriel M.
Rogers, Olga

SECOND YEAR

Brown, Marjorie E.
Casey, Henry
Flett, Ruth
Hughes, Beatrice F.
Jopp, Mary Stuart
Landers, Muriel.
Magnan, Alice
Marven, Alice Dobson
McDougall, Emily
Rexford, Hazel Mussen
Villard, Yvonne M.

THIRD YEAR

Eager, Edith Clark
Ferguson, Rosalind
Kingman, Elise D.
Lister, Eugene V.T.
Plaw, Emma
Smith, Randolph
Youngheart, Sybil

Post-Licentiate Course

Ross, Jeanne
Schmidt, Augusta C.M.

Senior Partial Students

Abel, Pasha
Bagan, Miriam
Blucher, Mary
Braithwaite, Dorothy
Childs, Mary
Clark, Cutherbert N.
Clement, Yvonne
DuTremblay, Gertrude
Fineberg, Lena
Gagnier, Réné
Glickman, Matilda
Griffin, Ruth
Groulx, Genevieve
Healy, Gertrude K
Kuhns, Alma Mary
Livingstone, Clarice M.
Marks, Pauline D
Millman, Albina
Milston, Sophie
Mitchell, James I.
McGill, Christine D.
McLachan, Jenny
Maclaren, Winifred
McLaren, Elsie
MacPhail, Dorothy
Ramage, Annie
Reddy, Marguerite
Ross, Alice
Ross, Mrs. Fern
Ross, E. Marjorie
Savage, Annie D.
Savage, Helen Galt
Smardon, Florence E.
Smythe, G. M.
Snetsinger, Irene
Snowdon, Evelyn
Travers, Muriel N.
Ullock, Jessie M.
Upton, Edith E.
Vibert, Mary P.
Watmough, Doreen
Weinfeld, Fanny
Williamson, Isabel
Wright, Cloe

FACULTY OF APPLIED SCIENCE.

FIRST YEAR

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Benett, Charles Morgan	Brantford, Ont	Brantford Collegiate Institute.
(2) Bennett, William H	New Glasgow, Q	
Birks, Gerald Alfred	Montreal, Que	Private Tuition.
Blachford, Hy. Lloyd	Montreal, Que	Montreal High School.
Black, Edgar Pattyson	Montreal, Que	Bishop's College School, Lennoxville.
Black, Lennox Graham	Montreal, Que	Princeton University, N.J
Blaiklock, Stansfeld T	Montreal, Que	Lower Canada College, N. D. G.
Bourret, Paul E	Montreal, Que	Catholic High School.
Bowie, Gordon Harper	Ottawa, Ont	Ottawa Collegiate Inst.
Brooks, Charles Lennox	Westmount, Que	Westmount Academy, Westmount, Que
Brushey, Edward Kingsley	Montreal, Que	
Bryant, Albert E	Sherbrooke, Que	Lennoxville Academy, Lennoxville, Que.
Camp, Eric William	Westmount, Que	Westmount Academy.
Cann, Frederick Lorne	Peterborough, Ont	Peterboro Collegiate Institute.
Conroy, Joseph Matthew	Britannia Bay, Ont	Ottawa Collegiate Inst.
Copping, Allan Blythe	Westmount, Que	Montreal High School.
Coughlan, Gerald D	St. John's Nfld	St. Bonaventure s Coll., St. John's, Nfld.
Creaghan, Gerald Francis	Newcastle, N.B	Macdonald College, Ste. Anne de Bellevue, Que.
Dean, Oliver James	Regina, Sask	Regina Collegiate Inst.
Dick, George	Sherbrooke, Que	
Dionne, Joseph Alex	Montreal, Que	Mount St. Louis Inst., Montreal, Que.
Doran, James	Montreal, Que	Catholic High School.
Dorken, Herman Rudolf	Westmount, Que	Montreal High School.
Doyle, Sam	Douglastown, N.B.	St. Dunstan's College, Charlottetown, P.E.I.
Farley, Howard Herbert	Coaticook, Que	Catholic High School.
Ford, Robert	Ottawa, Ont	Ottawa Collegiate Inst.
Foster, Stanley Campbell	Montreal, Que	Commercial & Tech. High School.
Fox, Thomas J. J	New York City	Mount St. Louis, Montreal, Que.
Fraser, Walter Lloyd	Burford, Ont	Brantford Collegiate Inst
Gagnon, Paul Emile	Westmount, Que	Catholic High School, Montreal.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Gooch, Harold Cowasjee	Dundee, Que.	Cheltenham College, Eng.
Gould, Walter Stilson	London, Ont.	London Collegiate Inst.
Hale, Frank W. G.	Montreal, Que.	Y. M. C. A. Classes.
Hardtman, Harold Allman	St. Kitts, B.W.I.	New York Prep. School.
Harris, Clifford Norton	Verdun, Que.	Verdun Academy.
Hastings, Walter Hindson	Regina, Sask.	Regina Collegiate Inst.
*Hersey, Andrew C.	Westmount, Que.	
Hogarth, Francis Gordon	London, England	Private Tuition
Hulburd, Wm. Chauncey	Cowansville, Que.	Stanstead College School
Jelly, Calvin Sherwood	Carleton Place, Ont.	Carleton Place High School.
Jordan, Leo Joachim.	Lindsay, Ont.	Lindsay Collegiate Inst.
Kalem, John Chrysostom	Ottawa, Ont.	Shawville Acad., Shawville, Que.
Kay, Stuart Evans.	Montreal, Que.	Montreal, High School.
Kelly, John Christin	Edmonton, Alta.	Univ, of Alberta.
Lake, Norman John.	Brantford, Ont.	Brantford Coll. Inst.
Larin, Georges	Montreal, Que.	Private Tuition.
Lee, Harold Carleton.	St. John, N.B.	Trinity College School, Port Hope, Ont.
Lester, Wm. Ronald	Westmount, Que.	Montreal High School.
*Levick, Arthur Lascelles	Montreal, Que.	Blundell's School, Devon, Eng.
Levin, Jacob	Ottawa, Ont.	Ottawa Collegiate Inst.
Louttit, Wm. Chas.	Montreal, Que.	Montreal High School.
Low, Richard Alex.	Ottawa, Ont.	Ottawa Coll. Inst.
McLean, Arthur Cedric	London, Ont.	Sault Ste. Marie H. School.
McLellan, Harold Elmer	Summerside, P.E.I.	St. Dunstan's College, Charlottetown, P.E.I.
McLeod, George Egerton S.	St. John, N.B.	Trinity College School, Port Hope, Ont.
Marson, Thomas Walter	Westmount, Que.	Montreal High School.
*Martin, Richard Hannan	Ogdensburg, N.Y.	Loyola College.
Mewburn, Arthur Fenwick.	Calgary, Alta.	
Mitchell, Jack Clarence	London, Ont.	London Collegiate Inst.
Monette, Irenee	Montreal, Que.	Private Tuition.
Morphy, Hugh Bolton.	Listowel, Ont.	Listowel High School.
Morrisette, Gordon Joseph.	Sherbrooke, Que.	North Hatley Acad., N. Hatley, Que.
Morse, Eric David.	Winnipeg, Man.	Upper Canada College, Toronto.
Mullan, Harold S.	Hudson Heights, Que.	Stanstead College, Que.
Nutter, Jack Caswell.	Lennoxville, Que.	Lennoxville Academy.
Paddon, John Edmund	Montreal, Que.	
Parke, Charles Sager.	Hamilton, Ont.	Hamilton Collegiate Inst.
Parker, Leslie Hunter	Leeds Village, Que.	Lachute Academy, Lachute, Que.

* Partial.

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Parnell, Wm. Alistair D. . .	London, Eng.	Eton College, London, England.
Potter, Nelson Caldwell. . .	Montreal, Que.	Private Tuition
Purcell, John Metcalfe. . . .	Cobden, Ont.	Renfrew Coll. Inst., Renfrew, Ont.
Rankine, Andrew Dodge. . .	St. John, N.B.	Rothesay Collegiate School, Rothesay, N.B.
Reeve, Charles Lailey.	Outremont, Que. . . .	Shortell's Academy, Montreal,
Reiffenstein, John C.	Westmount, Que. . .	Ashbury College, Ottawa, Ont.
Rutherford, William King.	Westmount, Que. . .	Montreal High School.
Schiedel, Wilfrid H.	Waterloo, Ont.	Meisterschaft, School, Toronto, Ont.
Scott, Gordon Douglas. . . .	Westmount, Que. . . .	Westmount Academy.
Shapter, Carl.	Montreal, Que.	Montreal High School.
Smith, Donald Taylor.	Westmount, Que. . .	Wykeham House, Westmount, Que.
Thompson, William Allen. .	Montreal, Que.	Private Tuition
Timmerman, Everett D. . .	Montreal, Que.	Lower Canada College, N. D. G.
Travis, Clifford Weldon. . .	Sydney, N.S.	St. Andrew's Coll., Toronto, Ont.
Tucker, Bryant Burgess. . .	N. Devon, Eng.	Exeter School, Exeter, Eng.
Vessot, Chas. Y. R.	Ottawa, Ont.	Ottawa Collegiate Inst.
Wait, Eric H.	Montreal, Que.	Com. & Tech. H. S., Montreal, Que.
Wallace, George Arthur. . .	Granby, Que.	Private Tuition.
Waller, Justin Benj.	Hamilton, Ont.	Hamilton Collegiate Inst.
Waring, Wm. Leigh, ...	St. John, N.B.	St. John High School.
Way, Wm. Russell.	Montreal, Que.	Pickering College, Newmarket, Ont.
Weibel, Emil Edwin.	Montreal, Que.	Comm. & Tech. High School.
Weinstein, Charles.	Montreal, Que.	Montreal High School.
Wheeler, Frederick Haskell.	Ste. Jovite Stn., Que.	
White, James Percy.	Winnipeg, Man. . . .	Collegiate Inst., W'p'g.
Wickenden, John Francois.	Bethel Conn.	Bethel High School.
Williams, Leonard Francis.	Fort Frances, Ont. .	Trinity College School, Port Hope, Ont.
Williamson, Allan.	Westmount, Que. . .	
Wilson, Hugh Allen.	Westmount, Que. . .	Westmount Academy.
Winfield, Edwin.	Fort William, Ont. .	Fort Wm. Coll. Inst.
Winter, Thomas Hinson. . .	St. John's Nfld.	Bishop Feild College, St. John's.
Work, Melvin Karl.	Montreal, Que.	Montreal High School.

SECOND YEAR

NAME	HOME ADDRESS
Abbott-Smith, Reginald B	Westmount, P.Q.
Aggiman, Jacques	Constantinople, Turkey
Armitage, Reginald Scott	Sherbrooke, P.Q.
Baillie, G. Irvine	Montreal, P.Q.
Balm, Charles Howard	Toronto, Ont.
Beairsto, Wendell Phillips B	Charlottetown, P.E.I.
Blackshaw, John	Montreal, P.Q.
Boast, Chester Winfield	Richmond, P.Q.
Booth, Fred. H.	Ottawa, Ont.
Boyd, Benjamin Stuart	Shawbridge, P.Q.
Brophy, Andrew Warren	Montreal, P.Q.
*Brophy, Maurice James	Montreal, P.Q.
Buchanan, Colin Archibald	Levis, P.Q.
Buckland, Arthur Leland	Ways Mills, P.Q.
Carroll, George Francis	Montreal, P.Q.
Cartwright, George Herbert	S. Croydon, England.
Cater, Henry Arthur	Montreal, P.Q.
Charlton, Edgar Alexander	Outremont, P.Q.
Chisholm, Alex. Harold	Blue Mountain, N.S.
Clark, Allan	Victoria, B.C.
Clerk, R. Douglas	Westmount, P.Q.
Cockfield, Alfred Ernest	Montreal, P.Q.
Crombie, Hugh Arthur	Toronto, Ont.
Cumming, Eric Cyril	St. James, Man.
Cushing, Eric Albert	Westmount, P.Q.
Davidson, David Grant	Westmount, P.Q.
Davis, Francis Harold	Montreal, P.Q.
Derrer, Louis Henry	Sault Ste. Marie, Ont.
*Dubuc, Marcil C	Montreal, P.Q.
Dunbar, Donald Gray	Hopewell, N.S.
Eadie, Robert Scott	Ottawa, Ont.
Farnworth, George Jarvis	Ottawa, Ont.
*Fergie, Thomas Francis	Montreal, P.Q.
Ferguson, John Alexander	Nelson, B.C.
Field, Charles Valentine G	London, England.
Forbes, Karl	Montreal, P.Q.
Fuger, J. Edward	Bay City, Mich.
Gagnier, Oliver Joseph	Montreal, P.Q.
Gardner, William McG	Montreal, P.Q.
Gerrie, William Houston	Kenora, Ont.
Giles, George Reid	Lachute, P.Q.
Goodeve, Arthur Erskine	Ottawa, Ont.
Gordon, Gerard Stafford S	London, England.
Greaves, Clifford	Barbados, B.W.I.
Hall, Terence Smythe	Montreal, P.Q.
Harkness, Walter Rae	Montreal, P.Q.
Harvey, Allen Davenport	Montreal, P.Q.
(3) Heney, John Bower Lewis	Ottawa, Ont.

*Partial.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

NAME	HOME ADDRESS
Hodgson, Jonathan Archibald	Montreal, P.Q.
Hoichberg, Harry	Montreal, P.Q.
(3) Hunt, Walter George	Bury, P.Q.
(3) Hutchison, Bruce Caverhill	Montreal, P.Q.
Hyndman, Edward Douglas	Sherbrooke, P.Q.
Illsley, Hugh Percival	Montreal, P.Q.
Jacques, Alfred George	Quebec, P.Q.
Jeffrey, Walter Rutherford	Buffalo, N.Y.
Jenckes, Kennan Brooks	Sherbrooke, P.Q.
Johnson, Lawrence Erle	Ottawa, Ont.
Johnston, Harry Wyatt	Outremont, P.Q.
Karnes, Harry V	Kansas City, Mo.
Kelly, John Leo	Buckingham, P.Q
Kelsch, Chester, F	Montreal, P.Q.
Kert, David	Montreal, P.Q.
Kirby, Guy Hurlston	Cookshire, P.Q.
Koelle, Leitrim E. L	Montreal, P.Q.
Labelle, Henri Sicotte	Westmount, P.Q.
Laing, Richard Ross	Westmount, P.Q.
Lanctot, Jean J	Quebec, P.Q.
La Prairie, Chas. Leonard Richard	Montreal, P.Q.
Lemay, Venance	Fort D. A. Russell, Wyoming.
Lemoine, Albert F	Montreal, P.Q.
Liddy, Samuel John Wilford	Dundas, Ont.
Little, Harold Butler	Ottawa, Ont.
Livingstone, Edward Archibald	Washington, D.C.
Lowe, Edward Jackson	Metcalfe, Ont.
Loy, John Austin	Ottawa, Ont.
McCracken, Merrick Rennie	Danville, P.Q.
McCulloch, Orval James	Ottawa, Ont.
Macdonald, Donald Monteith	Edmonton, Alta.
McEvers, Harold Eric	Cobourg, Ont.
Macfarlane, Donald Henry	Sherbrooke, P.Q.
Mackenzie, William Langlands	Ottawa, Ont.
McLean, Hugh	Montreal, P.Q.
McLeod, John E	Bridgeport, Conn.
Macpherson, Hugh	New Glasgow, N.S.
Macklin, Herbert George	Fenella, Ont.
Mahaffy, Herbert Laurence	Pointe Claire, P.Q.
Marquette, Hector	Montreal, P.Q.
Mawdsley, James Buckland	Estevan, Sask.
Moas, Battasar	Havana, Cuba.
Murphy, Albert Edward	Arnprior, Ont.
Nosworthy, Claude William M	Kingston, Jamaica.
O'Leary, Henry Britton	Richibucto, N.B.
Oliver, Lionel O	Quebec, P.Q.
(3) Ouimet, Réné	Montreal, P.Q.
Parsons, Eric Allan	Westmount, P.Q.
Parsons, Frederick Sidney	East Angus, P.Q.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

NAME	HOME ADDRESS
(3) Patterson, James Freebairn	Montreal, P.Q.
Perrault, Réné	Montreal, P.Q.
(3) Pick, Charles H.	Westmount, P.Q.
Pitt, Sylvester Sheridan	Montreal, P.Q.
Pitts, Gordon McL	Ottawa, Ont.
Poe, Alexander Spence	Montreal, P.Q.
Pope, Eric Julian	Westmount. P.Q.
Rainboth, Leonard	Ottawa, Ont.
Reid, Edgar Norman	Westmeath, Ont.
Robertson, Robert McFadzean	Lachine, P.Q.
Rochester, Gordon Hamilton	Haileybury, Ont.
Rochester, Lloyd Baillie	Ottawa, Ont.
Rosen, Hyman H	Montreal, P.Q.
Ross-Ross, Donald Ronald de Courcy	Lancaster, Ont.
Rutherford, William Jackson	Westmount, P.Q.
Sandison, William Ross	Winnipeg, Man.
Scott, George	Westmount, P.Q.
Scott, William Beverly	Dalhousie, N.B.
Scriver, Frederick William	Montreal, P.Q.
Shanly, James	Montreal, P.Q.
Shannon, Robert Eric	Bath, England.
Smith, Edmund Howard	Westmount, P.Q.
Smith, Henry Emmett	Ottawa, Ont.
Smith, James W. H	Montreal, P.Q.
Smithers, Gordon Theodore	Westmount, P.Q.
Soper, Harold Warren	Ottawa, Ont.
Stewart, Malcolm Gordon	Montreal, P.Q.
Stockwell, James	Danville, P.Q.
Strong, Randolph W	Cambria, P.Q.
Sutherland, Dan M	New Glasgow, N.S.
Sutherland, Victor Richardson	Victoria, B.C.
Thomas, Philip	Montreal, P.Q.
Thompson, Grattan D.	Montreal, P.Q.
Todd, John Jackson, Jr	New York, N.Y.
Trudeau, Alphonse	Montreal, P.Q.
Tucker, Alexander Ewing	Bermuda.
Turnbull, Lawrence R.	Dockton, Wash.
Wade, Howard Rossiter	Montreal, P.Q.
Walter, Arthur William	Westmount, P.Q.
Ward, Melville Ernest St. Clair	Montreal, P.Q.
Warriner, Norman Downing	Montreal, P.Q.
Weldon, Richard Laurence	Winnipeg, Man.
Wilson, Alfred Lawrence	Picton, Ont.
Wilson, Eldon P	Ottawa, Ont.
Wilson, James Kinnear	Sherbrooke, P.Q.
Woods, Charles Halkett	Montreal, P.Q.

THIRD YEAR

Alberga, Albert Miller	Jamaica, B.W.I.
Andrews, Frederick Harold	Quebec, P.Q.
Armstrong, Douglas Bond	Westmount, Que.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

NAME	HOME ADDRESS
Bangs, Raymond Gardiner	Ottawa, Ont.
Bauset, Jules	Montreal, Que.
Binks, Norbert Trevette	Ottawa, Ont.
Bishop, John Murphy	Montreal, Que.
Bone, Allan Turner	Calgary, Alta.
Booth, Percy	Montreal, Que.
Bradley, Nicholas Hilburn	Calgary, Alta.
Brown, Arthur Alexander	Ottawa, Ont.
Cameron, Edward Parke	Ottawa, Ont.
Carnsew, Charles N.T.	Vancouver, B.C.
Chipman, Noel Ingersoll	Montreal, Que.
Chisholm, Arthur Harold	Ottawa, Ont.
Clark, Walter D	Massena, N.Y.
Coombes, Bernard Dysart	Montreal, Que.
Creaghan, Thomas Cyril	Newcastle, N.B.
Creighton, Charles Pearse	New Westminster, B.C.
Crutchfield, Howard	Huntingdon, Que.
Dawson, Heber William	Ottawa, Ont.
DeCew, Reginald Mark	Grand Forks, B.C.
DesBrisay, Eric Merrill	Vancouver, B.C.
Deschamps, Albert, Jr	Montreal, Que.
Dorken, Herbert Walter	Westmount, Que
Douglas, Geo. Vibert	Westmount, Que.
Dowell, Dawson	Londonderry, N.S.
Emery, Herbert James	Edmonton, Alta.
Fairweather, Starr Whitney	Ottawa, Ont.
Ferguson, Allan Andrew	Ottawa, Ont.
Ferguson, George Harry	Nelson, B.C.
Fotheringham, John Beveridge	Ottawa, Ont.
Fullerton, Alexander Frederick	Westmount, Que.
Gibbs, Charles Richard	Carthage, N.Y.
Gibbs, William Gwyer	Buckingham, Que.
Grant, Harold David	Vancouver, B.C.
Greene, Leslie Kirk	Montreal, Que.
Hacker, Louis W	Summerside, P.E.I.
Hargrave, Ralph Carlton	Medicine Hat, Alta.
Harris, Victor Bassett	Verdun, Que.
Harshaw, William Jacob	Cleveland, Ohio.
Hebden, Edward Raymond	Montreal, Que
Hight, Wm. Russell,	Derby Line, Vt., U.S.A.
Hobart, George Maxwell	Lachine, Que.
Hodgson, George Ritchie	Montreal, Que
Hovey, Waldo Clyde	Sherbrooke, Que.
Hutchinson, Samuel Arthur	Montreal, Que.
Johns, William Henry	Murray Mine, Nickleton, Ont.
Kelly, W. H	Buckingham, Que.
Kilpin, Noel Legh Sangster	Westmount, Que.
Kirkpatrick, Paul Chester	Parrsboro, N.S.
Klein, Bernard Albert	Westmount, Que.
(4) Laddon, I. Macklin	Montreal, Que.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

NAME	HOME ADDRESS
Laffoley, Laurence Herbert	Montreal, Que.
Lang, Alfred Harding	Westmount, Que.
LeGault, Albert	Smith's Falls, Ont.
Leslie, Eric Alexander	Westmount, Que.
Lindsay, Guy Adamson	Winnipeg, Man.
Locock, Leicester	Surrey, Eng.
Lutz, George Harold	Moncton, N.B.
Malcolm, Charles Gordon	St. John, N.B.
McCaghey, Norman F	Quebec, P.Q.
McCully, Robert C	Salisbury, N.B.
(4) MacEwen, Ewen	Westmount, Que.
McIntosh, Ernest Donald	Carleton Place, Ont.
MacKenzie, Brouard Hunter Tyndall	Moncton, N.B.
MacLachlan, Robert Cavan	Buckingham, Que.
McLean, John Reginald	Morenci, Arizona.
MacLean, Wm. H	Crapaud, P.E.I.
McLeod, George Donald	Montreal, Que.
McNeill, Donald Leverne	Vancouver, B.C.
McNicoll, Charles	Westmount, Que.
McPhail, Donald Stuart	Jamaica, B.W.I.
Macpherson, Albert Dill	Montreal, Que.
Marchbank, Ogilvie James	Montreal, Que.
Marcoux, George	Quebec, P.Q.
Marrotte, Edgar S	Westmount, Que.
Milne, Arthur Hartley	Montreal West, Que.
Miner, George Denison	Granby, Que.
Moas, Baltasar	Havana, Cuba.
Mooney, Frank Melbourne, Jr.	Montreal, Que.
Morris, William Hugo	Ottawa, Ont.
(4) Moulton, Vincent C	Westmount, Que.
Mucklow, Graham Fernie	Lancashire, Eng.
Muir, William Paine	Westmount, Que.
Murdock, Alfred William	Amherst, N.S.
Nehin, Frank O'Brian	Montreal, Que.
Neilson, Stanley Alexander	Westmount, Que.
Nesham, Lionel Charles	Torquay, England.
(4) O'Donell, John Gerard	Quebec, P.Q.
Ord, Sidney Arthur	McAdam, N.B.
(4) Paisley, John Ernest Harris	Ottawa, Ont.
Parke, J. Scott	Montreal, Que.
Penney, Edgar	Carbonear, Nfld.
Petford, Herbert Stanley	St. Thomas, D. W. I.
Reddy, Eric Beresford Haining	Montreal, Que.
Reid, John Herbert	Grand Forks, B.C.
Richardson, Samuel Spaulding	Montreal, Que.
Ritchie, Harold H	Newcastle, N.B.
Rittenhouse, Herbert Waterman	Outremont, Que.
Roberton, Kenneth Baillie	Montreal, Que.
Robertson, Murray	Montreal, Que.
Robitaille, Alphonse Edmond	Montreal, Que.

The figure (2), (3) or(4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

NAME	HOME ADDRESS
Rogers, Alvah Burpee	Montreal, Que.
Rosebrugh, Kenneth	Vancouver, B.C.
Rounthwaite, Francis George	Cahore, Ont.
Ruggles, Harry Lemoine	Bridgetown, N.S.
Rutherford, Archibald Bowman	Westmount, Que
Ryan, Charles Wilburt	Vancouver, B.C.
Schellens, Eugene Levering	Groton, Conn., U.S.A.
Scott, Harold A	Ottawa, Ont.
Seale, Edgar McKeown	Montreal, Que.
Sears, Chester Bliss	Moncton, N.B.
Seath, W. Pringle	Montreal, Que.
Shrimpton, Dudley John	Westmount, Que.
Silver, Benjamin L	Brooklyn, N.Y.
Smith, Walter C	St. John, N.B.
Smith, William Henry	Owen Sound, Ont.
Sproule, John Emdon	Digby, N.S.
Sutherland, Walter Scroggie	Valleyfield, Que.
Swenson, Paul Sidney	Westham Island, B.C.
Taylor, John Ross	Westmount, Que.
Twinberrow, James Oswald,	Gateshead-on-Tyne, Eng.
Voligny, Louis Rodolphe	Montreal, Que.
Wallingford, George Emile	Ottawa, Ont.
Weir, William	Montreal, Que.
West, Frank L	Cole's Island, Queen's Co., N.B.
White, MacLeod	Sandon, B.C.
Wickenden, Henri Robert	Bethel, Conn. U.S.A.
Wilkens, John	Neilsonville, P.Q.
Wilkins, Arthur G	Ottawa, Ont.
Williscroft, Geo. Murdoch	Victoria, B.C.
(4) Woollatt, David Herbert	Walkerville, Ont.

FOURTH YEAR

Alberga, George Frederick	Montego Bay, Jamaica.
Angus, Roy F	Regina, Sask.
Baker, Dennis	Bansha, Ireland.
Bell, William Edward	Montreal, P.Q.
Bignell, Hilary V	Montreal, P.Q.
Black, Alexander	St. John's, Nfld.
Bonhomme, Lionel	Papineauville, P.Q.
Bremner, Douglas	Westmount, P.Q.
Brisbane, John S	Westmount, P.Q.
Buckley, Peter Burton	Genoa, Italy.
Bull, Wilford E	Winnipeg, Man.
Cameron, Charles Munnis	Sydney, N.S.
Cann, Percy	Yarmouth, N.S.
Chalifoux, Lionel	St. Hyacinthe, P.Q.
Cole, Douglas Seaman	Ottawa, Ont.
Coleman, Milton T	Westmount, P.Q.
Cooper, Albert B	North Battleford, Sask.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

NAME	HOME ADDRESS
Darbyson, Allen Burnup	Montreal, P.Q.
Dempster, Arthur L.	Rossland, B.C.
Despatie, J. Onesime	Montreal, P.Q.
Fair, Robert McCamus.	Toronto, Ont.
Fenster, Moses	Montreal, P.Q.
Floyd, Geo. David	Pictou, N.S.
Forbes, Duncan Stuart	Montreal, P.Q.
Forbes, Norman Bruce	Ottawa, Ont.
Fowler, Walter Douglas	Westmount, P.Q.
Frame, William Layton.	Vancouver, B.C.
Freeland, John James	Montreal, P.Q.
Fritz, W. Clifford	Providence, R.I.
Fyles, Lyndon Fulford	Abercorn, P.Q.
Fyon, Albert L.	Montreal, P.Q.
Gage, Edward Victor.	Stanbridge East, P.Q.
Galloway, Charles Campbell	Vancouver, B.C.
Garden, H. Mackie G	Montreal, P.Q.
Gervers, Ronald Julius Wernher	London, England.
Gilbert, Philip Geoffrey Britton	Toronto, Ont.
Gilchrist, George Hagor	Ottawa, Ont.
Goddard, George A.	Outremont, P.Q.
Gomes, Lawrence Fernando.	Antigua, B.W.I.
Grant, Wm. Roy	New Glasgow, N.S.
Green, Harold Percy	Soperton, Ont.
Guy, Richard W.	Ottawa, Ont.
Henson, Harold G	Lethbridge, Alta.
Hovey, J. A.	Sherbrooke, P.Q.
Hovey, Rexford William.	Sherbrooke, P.Q.
Hyde, Walter Court.	Montreal, P.Q.
Ilsley, Charles Preston	Berwick, N.S.
Innes, Colin W.	Dartmouth, N.S.
Johnson, Byron Peter	Prince Rupert, B.C.
Johnson, Hammond.	Charlottetown, P.E.I.
Laing, Murdoch	Montreal, P.Q.
Laing, Norman Beattie.	Essex, Ont.
La Montagne, John M	Montreal, P.Q.
Lamontagne, Yves.	Montreal, P.Q.
Lauder, Lester E	Westmount, P.Q.
Learned, Frank B.	Learned Plain, P.Q.
Lindsay, Charles Crawford.	Quebec, P.Q.
Lionais, J. Edward.	Montreal, P.Q.
Little, Edward Carruthers.	Ottawa, Ont.
Loggie, Purves Primrose	Fredericton, N.B.
Lyons, Edward Leslie	Kingston, Jamaica.
Macaulay, Colin A.	Scotstown, P.Q.
Macaulay, Douglas Lawson.	Westmount, P.Q.
McCall, James Darling.	Montreal, P.Q.
MacKay, Arthur Harold.	New Glasgow, N.S.
McNicoll, David, Jr.	Westmount, P.Q.
Monat, Oscar Charles	Outremont, Que.
Montgomery, Samuel Clifford	Winnipeg, Man.
Morris, Frederick Jarvis	St. Regis Falls, N.Y.
Murray, Harcourt Amory.	New Glasgow, N.S.
Nelson, Maxwell Stuart	Montreal, P.Q.
O'Shea, Daniel Wilfrid	St. Vincent de Paul, P.Q.

NAME	HOME ADDRESS
Page, John A.	Brockville, Ont.
Parkins, Frank Albert	Montreal, P.Q.
Parsons, Lloyd Holman	Westmount, P.Q.
Patterson, Alexander Ernest	Longueuil, P.Q.
Pennock, William Britton	Ottawa, Ont.
Perrault, Jean Julien	Montreal P.Q.
Perry, Brian R	Vancouver, B.C.
Perry, Rolf Selby	Vancouver, B.C.
Ribadeneyra, Antonio	Ecuador, S. America.
Robertson, John Louis A	Montreal, P.Q.
Ross, George William	Westmount, P.Q.
Scantlebury, Reginald Avery	Ottawa, Ont.
Scott, Norman M	Ottawa, Ont.
Scott, Robert Allan	Valleyfield, P.Q.
Shand, Errol Bertram	Windsor, N.S.
Smith, Briton Oliver	Montreal, P.Q.
Smith, William Henry	Owen Sound, Ont.
Sparling, Eric Carleton	Granby, P.Q.
Staples, Grenville, James	Winnipeg, Man.
Summerskill, John Henry	St. Albans, Vt.,
Taylor, George Melville	Ottawa, Ont.
Taylor, W. Harold	Winnipeg, Man.
Thom, James Balfour	Montreal, P.Q.
Todd, Martin Milne	Galt, Ont.
Tracy, Thomas Leonard	Vancouver, B.C.
Williams, Thomas Anwyl	Ottawa, Ont.
Wilson, Arthur Louis	Vancouver, B.C.
Wilson, Calvin P	Carp, Ont.
Yuill, Russell	Truro, N.S.

FACULTY OF MEDICINE.

FIRST YEAR

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Aikins, Charles Ernest	Guysboro, N.S.	Dalhousie University.
Almond, Frank Willis (Dent.)	Boise, Idaho.	University of Idaho.
Almond, Wesley Walter	Punnichy, Sask.	
Apps, Carl Overy	Brantford, Ont.	Brantford Coll. Inst.
†Armitage, E. Trenholme	Montreal West, Que.	Montreal High School.
Armour, John Campbell	Perth, Ont.	Perth Coll. Inst.
Auerbach, Wolf	Montreal, Que.	
Bankier, John Patrick	Hamilton, Ont.	Collegiate Sch., Windsor, N. S.
Barrett, James DeCordova.	Jamaica, B.W.I.	Boston Med. College.
‡Beattie, Wil'iam Walter	Montreal, Que.	Lower Canada College.
Belyea, George Nelson	Coldstream, N.B	University of New Brunswick.
Benger, Manfred P	Port Arthur, Ont	Port Arthur Coll. Inst.
‡Beveridge, William Wentworth,	Vancouver, B.C.,	Vancouver High School.
Boone, Storer Woodford	Presque Isle, Me.	Presque Isle High School
†Bradshaw, William Henry.	Boston, Mass.	
Branch, Edmund Arnold G.	Antigua, B.W.I.	The Grammar School, B.W.I.
*Brisson, Hermas Ferdinand.	Ottawa, Ont	Ottawa University.
Brooks, William Arthur	Indian Head, Sask.	
Caldwell, D. Manchester	Arnprior, Ont.	Arnprior High School.
‡Cassidy, Halton C	Montreal, Que.	Kingston Coll. Inst.
Challenger, Neville E.	St. Kitts, B.W.I.	St. Kitts-Nevis H.S.
(2) Christie, John Ed. (B.Sc.).	Lachute, Que.	Lachute Academy.
Coler, Eugene Seeley	Summit, N.J	Choate School, Wallingford, Conn
Common, J. Stevenson (Dent.),	Westmount, Que.	Shortell's Academy.
Coote, Frank Taschereau.	Quebec, Que.	Private Tuition.
Cross, John Samuel	Ottawa, Ont	Ottawa University.
Darche, Albert	Sherbrooke, Que.	Sherbrooke College.
†daSilva, Austin P. Rodrigues	Georgetown, Br.G.	Y.M.C.A. Montreal.
Davidson, Walter McDonald,	Newton, Ont.	Listowel H.S., Listowel, Ont.
DeRochie, Matthew Curtis	Cornwall, Ont.	Cornwall High School.
Dickson, Frederick Russell,	Rectory Hill, Que.	Bishop's College, Lennoxville, Que.
Dimick, Karl Eugene	Boston, Mass	Boston Public Latin School.
‡Everett, Herbert Stewart.	St. Andrews, N.B.	Charlotte Co. G. School, N.B.
Farmer, Vincent	Vankleek Hill, Ont.	Vankleek Hill Coll. Inst.
‡Fleck, William Westwood.	Montreal, Que.	
Fowlie, Fred Francis.	Little Branch, N.B.	Horton Academy, N.B.
Frawley, John Milan	Sudbury, Ont.	

*Partial. † Repeating ‡ Double Course.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Freedman, Nathan	Montreal, Que	Montreal High School.
Friefeld, Gilbert Harry	Montreal, Que	Comm. & Tech. High School.
‡Gallagher, Cedric A. Woolls	Winnipeg, Man.	St. John's College, Winnipeg.
Gallay, Abraham	Montreal, Que	Montreal High School
†Garber, Hyman	Montreal, Que	Hunter's Academy.
Gardner, Alexander John	Cornwall, Ont.	Cornwall High School.
‡Gillanders, Henry Edwin	Lemesurier, Que.	Danville Academy.
†Gilmor, Horace M	Montreal, Que	
Gold, Benjamin (Dent.)	Montreal, Que	Montreal High School.
Goodridge, Leslie Ayris	Bridgetown, Barbados.	
† ‡Gordon, John Keith	Winnipeg, Man	University School, Victoria, B.C.
Graham, William Douglas	Glen Murray, Que.	Stanstead College, Que.
Gregory, Henry Bascom	St. Joseph, Barbados.	Harrison Coll., Barbados
Hale, Geo. McAdie (Dent).	Notre Dame de Grace.	C. DeBoisseu School.
Hanson, George Fulford	Schenectady, N.Y.	Union Coll., Schenectady.
†Hart, Harry Harper	Notre Dame de Grace, Que.	Montreal H.S.
*Henderson Marshall Waitt	Victoria, B.C.	Langora H.S., Vancouver
†Henry, Charles Blanchard	Montreal, Que.	
Hindson, John Cooper	Regina, Sask.	
Holling, Stanley Arnold	Brantford, Ont	Victoria High School.
*Horatio, Henry J. McAllister,	Georgetown, Br.Gu.	Queens Coll., Br. Guiana
Hutchison, Keith Ogilvie	Montreal, Que	Montreal High School.
Isaacman Abraham	Montreal, Que	Montreal High School.
Johnston, Kenneth Burns.	Montreal, Que	St. Andrew's Coll., Toronto, Ont.
‡Jordan, Julian	Barbados, B.W.I.	
Kaufmann, Mark	Montreal, Que	Montreal High School.
Kelly, George Albert	Watertown, N.Y.	Watertown High School.
*Kelley Andrew	N. Attleboro, Mass.	
Kemp, William Norman	Vancouver, B.C.	King Edward High School.
Kennedy, Alexander	Antigonish, N.S.	St. Francis Xavier Univ.
Kirschberg, Irwin Isaac (Dent.)	Montreal, Que.	Montreal High School.
Ladouceur, Frederic	Hawkesbury, Ont.	Montreal College.
Laurin, Earl Mitchell (Dent).	Montreal, Que.	Shortell's Academy.
Leggo, Ralph Christopher.	Ottawa, Ont	Ottawa Collegiate Inst.
Lerner, Leiber Wolfe	Quebec, Que	Quebec High School.
†Levitt, Nathan	Montreal, Que	Private Tuition.
Logan, Herbert Lemuel	St. John, N.B.	N.B. Normal School.
†Lortie, Antoine C.	Montreal, Que	
Lowry, George Leonard	Carp, Ont	Carp High School.
† ‡McCabe, Charles Penny.	Pictou, N.S.	Pictou Academy.
McCarville, Charles Raymond,	Kinkora, P.E.I.	St. Dunstan's College, P. E. I.
McCormick, Robert Roy	Arnprior, Ont	Arnprior High School.
McCullough, John Thomas,	Science Hill, Ont.	St. Mary's Coll. Inst.
†McDonald, Angus Lawrence,	Penetanguishene, Ont.	Penetang. High School.
Macdonald, Douglas Ogilvie,	Sutton, Que.	Trinity Coll. School, Port Hope, Ont.

*Partial. † Repeating. ‡ Double Course.

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
McDonald, Hugh Reid	Newton, Ont.	Listowel High School.
McLean, Aubrey Bertram	Port Hood, N.S.	St. Francis Xavier Coll., Antigonish, N.S.
‡McLeod, Donald William	McCrimmon, Ont.	Presby. Coll., Montreal.
MacPherson, Daniel Alexander,	Bellevue, P.E.I.	Prince of Wales Coll., Charlottetown.
Moore, Charles H. Pierce (Dent.)	Windsor Mills, Que.	Private Tuition.
Moret, Hermione	Lausanne, Switzerland.	
Nathanson, Joseph Nathan	Ottawa, Ont.	Ottawa Coll. Inst.
Ofiesh, Kanaan Fares	Montreal, Que.	Shortell's Academy.
‡O'Meara, Robert Stewart	Victoria, B.C.	Victoria High School.
Pardoe, John Borden	Camanche, Cal.	Univ. of California.
††Parkins, Gerald Adams	Montreal, Que.	Lower Canada College.
†Parsons, Arthur Reginald	Bay Roberts, Nfld.	Y.M.C.A., Montreal.
Phillips, John Arthur W.	Balderson, Ont.	Bishop's Coll., Lennoxville, Que.
Primrose, Victor S. (Dent.)	Baltimore, Md.	Private School, Baltimore.
Quilty, Sylvester Patrick	Douglas, Ont.	Ottawa University.
Robinson, Eric Lindsay		
Rooney, J. Waldemar (Dent.),	Quebec, Que.	Laval, Que.
Rose, William Harold	Elma, Ont.	Chesterville High School.
Ross, Alexander Grant	East St. John, N.B.	Dalhousie College, Halifax, N.S.
Sample, Leon Ernest	Ottawa, Ont.	Ashbury College, Ottawa.
Savory, Philip Maxwell H.	Georgetown, B.G.	Rhodes Prep. School.
Shaw, William Campbell	Westmount, Que.	Montreal High School.
†Sicard, Lionel John	Buckingham, Que.	Buckingham Academy, Que.
†Sinclair, John Ernest	Jamaica, B.W.I.	
Solomon, Myer (Dent.)	Montreal, Que.	Montreal High School.
Spohn, Henry Gordon	Penetanguishene, Ont.	Penetang. High School.
†Street, John Archibald	Vancouver, B.C.	
‡Stuart, William Charles	Hoboken, N.J.	Hoboken High School.
Sullivan, Cornelius Thomas	Arnprior, Ont.	Arnprior High School.
Tallon, John Alexander	Cornwall, Ont.	Univ. of Ottawa.
Tenney, Roy Edward	Wabasha, Minn.	
‡Throop, Wilfred Earle	Brockville, Ont.	Brockville Coll. Inst.
Trossman, Isidor	Montreal, Que.	Montreal High School.
†Vert, Francis Clarence Dodds,	New Westminster. B.C.	Royal City H.S., New Westminster.
‡Viner, Abraham Korah	Montreal, Que.	Comm. & Tech. H.S.
Wheaton, Hazen Ashley	Petitcodiac, N.B.	Univ. of N.B.
Whelan, John Thomas	Ottawa, Ont.	Univ. of Ottawa.
Williams, John Rainford	Jamaica, B.W.I.	Howard University.
Williamson, Ralph MacAlpine,	Regina, Sask.	
Woodward, Arthur Gerald	Victoria, B.C.	University School, Victoria, B.C.
Wortley, Hugh Eames	Jamaica, B.W.I.	Oxford Univ., Oxford, England.
Young, Herbert Maitland.	Regina, Sask.	St. Andrew's Coll., Toronto, Ont.

† Repeating. ‡ Double Course.

SECOND YEAR.

NAME	HOME ADDRESS
Alden, Augustus Elihu	Lowell, Mass.
Archibald, William Charles	Halifax, N.S.
Barnhart, Walter Simpson	Ottawa, Ont.
Bell, Everett Hard	Tryon, P.E.I.
(3) †Bell, J. Alex. McLean	Teeterville, Ont.
Bishop, Leonard Francis	Brantford, Ont.
†Bloomberg, Max William (Dent.)	Montreal, Que.
Boucher, Wilfrid A.	Woonsocket, R.I.
Britton, Harry Earle	Pugwash, N.S.
Brown, Elfric Drew	Owen Sound, Ont.
†Browne, J. Carlind	Westmount, Que.
Burrows, Newton Smith	Guelph, Ont.
Calder, John Rodger	Lachute, Que.
Campbell, William Northcott	McCrimmon, Ont
Carter, Ernest Berchmore	Woodstock, Barbados, B.W.I.
Chantal, Leonard Eric	Grenville Bay, Que.
Clements, Clifford Gibson	Wapella, Sask.
Cochrane, William John	Victoria, B.C.
Coulson, Robt. Berry McAllan	Westmount, Que.
Cross, George Bond	Trinity, Nfld.
Dean, Joseph Russell	Clarenceville, Que.
Derick, Clifford Lambie	Noyan, Que.
Derrick, Fred Douglas (Dent.)	Clarenceville, Que.
Dickie, John Barrie	Truro, N.S.
Donnelly, Francis James	St. John, N.B.
‡Dowd, William Ritchie	Ottawa, Ont.
Duck, Charles W	Victoria, B.C.
Dursthoff, Leonard C	Lowell, Mass.
Fawcett, John Purvis	Hamilton, Ont.
Fraser, Oswald Lambert Kelly	Jamaica, B.W.I.
Gannon, John William	Glace Bay, N.S.
Greenwood, Allan Hamilton	St. Catharines, Ont.
Greenwood, Frederic Cyril	St. Catharines, Ont.
Gregson, William Ewart	Victoria, B.C.
Griffith, Harold Randall	Montreal, Que
†Hamilton, A. P.C.	Victoria, B.C.
Hamilton, Maurice Cayley	Cornwall, Ont.
Hastings, Robert C	Malone, N.Y.
Hillier, Leeland Glen	Leamington, Ont
Jarjour, Ellis John (Dent.)	Maisonneuve, Que.
Jenks, Archie Nathaniel (Dent.)	Coaticook, Que.
Keefe, William John	Alberton, P.E.I.
Keeping, Benjamin Charles	Murray Harbor, P.E.I
Kenning, Gordon Colfax	Victoria, B.C.
Kinsman, Reginald Price	Waterville, King's Co., N.S.
Lapp, Victor R.	Cobourg, Ont.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

† Repeating. ‡ Double Course.

NAME	HOME ADDRESS
Learoyd, Douglas Rainsford	Ottawa, Ont.
LeMay, Albert	Ottawa, Ont.
Lockhart, James Ransford	Bristol, N.B.
Loughery, Crandall	Norton, N.B.
McCrimmon, Alexander Murray	Kincardine, Ont.
MacDonald, Frank James	Truro, N.S.
†McGregor, Thomas D'Arcy	Schreiber, Ont.
MacLauchlan, Robert Henry	Calgary, Alta.
McLeod, William McLaren	Montreal, Que.
McMurtry, Bert M	Kinburn, Ont.
†Maitland, A. Wendell	Laval Rapids, Que.
Manning, Clinton Edgar	Magog, Que.
†Mars, John F	Shelton, Conn.
Mitchell, Robert Lee	Wellington, Somerset, Eng.
Morse, Harry Dodge	Berwick, King's Co., N.S.
Mowat, Bert	Williamstown, Ont.
Mowry, Daniel Prescott (Dent.)	Marieville, Que.
Naihouse, Morris	Montreal, Que.
Oberg, Axel Theodore (Dent.)	Vancouver, B.C.
O'Brien, Stephen Henry	Ottawa, Ont.
Palmer, John Hammond	Gagetown, N.B.
Parkes, A. John R	Sherbrooke, Que.
†Patrick, Ivan Young	Halifax, N.S.
Patterson, Peter Harold	Vancouver, B.C.
Pitts, Harry Herschel	Nelson, B.C.
Poulin, Fabian Louis	Ottawa, Ont.
Prichard, Richard Preston	Big Valley, Alta.,
Read, Walter Welton	Halifax, N.S.
Reid, Ferdinand Theodore	Jamaica, B.W.I.
†Ritchie, Noel Robert	Aylmer East, Que.
Robidoux, Peter Emory	Shediac, N.B.
Robillard, Henry Joseph	Ottawa, Ont.
Rosen, Jack (Dent.)	Montreal, Que.
Ross, Dudley Eyre	Elora, Ont.
Schachter, Louis (Dent.)	Montreal, Que.
Schachter, Samuel (Dent.)	Montreal, Que.
‡Scriver, Walter de Mouilpied	Westmount, Que.
Seaman, Rupert Frederick	Charlottetown, P.E.I.
Smelzer, Donald Campbell	Montreal, Que.
Smith, George Leamus	Charlottetown, P.E.I.
Stewart, Charles Conacher	Perth, Scotland.
†Stoughton, Dwight Harold	Hartford, Conn.
Sullivan, Daniel Cornelius	Arnprior, Ont.
Swancesky, Valerian Francis	New Westminster, B.C
Taylor, Henry D	Toronto, Ont.
Taylor, Ross Burt	Cobalt, Ont.
Trefry, Harold Scott,	Yarmouth, N.S.
Tucker, George Samuel	Warwick, Bermuda.
Tuohey, Cedric Edward Moody	Victoria, B.C.
Valentine, John Baptist	Ottawa, Ont.
Warren, Joseph Rainford	Boston, Mass.
‡Williamson, Norman Trenholme	Westmount, Que.
†Wolf, Thomas Conrad	Montreal, Que.

† Repeating. ‡ Double Course.

THIRD YEAR

NAME	HOME ADDRESS
Bâby, Henry	Chatham, Ont.
Barr, Charles Henry (Dent.)	Montreal, Que.
Bernard, Samuel David	Jamaica, B.W.I.
Bissember, Archibald	Berbice, Br. Guiana.
Bissett, George William	Vancouver, B.C.
Blair, Edward Murray	Truro, N.S.
Brodie, Alexander Wood	Smith s Falls, Ont.
Brown, E. Clifford	Montreal, Que.
Brown, J. F. Leigh	Middle Southampton, Que.
‡Busby, Edward M	Ottawa, Ont.
Cahanna, Bennie, L	Montreal, Que.
Chisholm, Alexander Neil	Port Hastings, C.B.
Church, Harcourt Bell	Aylmer East, Que.
Clarke, Harold St. George	St. John, N.B.
Coughlin, Francis Joseph	Montreal, Que.
Craig, Edward	North Gower, Ont.
Desaulniers, George Edmund Dearden	Windsor Mills, Que.
DesBrisay, Harold Archibald	Vancouver, B.C.
Desparois, Albert	Montreal, Que.
Elkington, Eric H. W	Duncan, B.C.
Falls, Franklin Nelson Kidd	Ottawa, Ont.
Farlinger, Anderson Carlyle	Ft. Covington, N.Y.
†Finklestein, Marcus Philip	Montreal, Que
Gareau, Urban Joseph	Ottawa, Ont.
Gillis, Austin F	Miscouche, P.E.I.
Gokey, Harold Lewis	S. Hammond, N.Y.
Grant, Keith Gordon	Bristol, England.
Hall, Reuben Stanford	Jamaica, B.W.I.
Halpenny, William	Galetta, Ont.
Halperin, Hyman Mordecai (Dent.)	Montreal, Que.
Hunter, William Andrew	Huntingdon, Que.
Johnson, Festus A	Oshweken, Ont.
Laing, James Robert	Westmount, Que.
Lamb, Arthur Stanley	Montreal, Que.
Lawrence, Robert Grant	Revelstoke, B.C.
Leahy, W. Gordon	Franklin Center, Que.
LeBel, Moise William	Ottawa, Ont.
Lunney, Edmund Wilfrid	St. John, N.B.
Lyons, Ormond Oscar	Waterville, King's Co., N.S
MacArthur, Robert Alexander	Detroit, Mich.
McDonald, John H	Stratford, Ont.
McGregor, Athol Fraser	New Glasgow, N.S.
McIsaac, William Fielding	Antigonish, N.S.
McKenzie, John Wendell	Charlottetown, P.E.I.
Marsh, Osmond Vincent	Jamaica, B.W.I.
Matthews, Leonard M	Port Arthur, Ont.
Miller, Fred. Gus	Vermilion, Alta.,
Montgomery, Lorne C	New Richmond, Que.
Moore, Joseph Derby	Victoria, B.C.
Murtagh, Andrew Patrick	Ottawa, Ont.
Newhook, William H	Carbonear, Nfld.
Nugent, John R	St. John, N.B.

† Repeating. ‡ Double Course.

NAME	HOME ADDRESS
O'Reilly, J. Bertram	St. John's, Nfld.
Park, Arnold Gerald (Dent.)	Danville, Que.
Parkes, Vernon Hill Troop	Belleisle, Annapolis Co., N.S.
Parsons, Walter S.	Montreal, Que.
Pearson, Hyman Harold (Dent.)	Montreal, Que.
Perez, Thomas E	Santiago, San Domingo, W.I.
Pengelley, Charles Edward	Jamaica, B.W.I.
Phillips, Gordon Gershon	Cornwall, Ont.
‡Richardson, Thomas Mallory	Balderson, Ont.
Robinson, James Dean	Saskatoon, Sask.
Rogers, Everly Eldon	Vancouver, B.C.
Roman, Lightfoot	Bay City, Mich.
Scully, Frank Joseph	St. John, N.B.
Silver, Paul Herbert (Dent.)	Westmount, Que.
Skinner, Bernard Woodworth	Weston, King's Co., N.S.
Stewart, Clarence James	Notre Dame de Grace, Que.
‡Struthers, Robert Rolf	Sudbury, Ont.
‡Stuart, Lorne James	Cainsville, Ont.
Sullivan, Currie M.	Woodstock, N.B.
Sutherland, Colin T.	New Glasgow, N.S.
Swancesky, Henry P	New Westminster, B.C
Tennant, Percy Stuart	Vernon, B.C.
‡Tinling, Charles Burnaby	Montreal, Que.
‡Warshawsky, Herman Leon (B.A.)	Montreal, Que.
Wienke, Charles Edward	Pembroke. Ont.
Wright, Henry Stanley	Southampton, N.B.

FOURTH YEAR

Abell, Murray Clement	Aylmer West, Ont.
Affleck, John Ernest	Chellwood, Sask.
Anderson, Charles Magee	Ottawa, Ont.
Baldwin, Sidney George	Vancouver, B.C.
Barrett, Harry Alfred	Vancouver, B.C
Bertram, James Knowles,	Dundas, Ont.
Brown, Bryce Alexander	Cornwall, Ont.
Campbell, P. Smyth	Port Hood, N.S.
‡Church, Cyril Klock	Aylmer, Que.
Cleveland, Henry Ross (Dent.)	Montreal, Que.
Conover, Kelcey Ireland	Montreal, Que.
Couture, Ernest	Hull, Que.
Donnelly, Joseph Michael	St. John, N.B.
Fineberg, Moe Newton (Dent.)	Westmount, Que.
Gall, G. Lockhart (B.A.)	Lachute, Que.
Goldblatt, Harry	Montreal, Que.
‡Goldbloom, Alton	Vancouver, B.C.
Greenspon, Esau A	Hawkesbury, Ont.
Gross, Louis	Montreal, Que.
Guiou, Norman Miles	Ottawa, Ont.
Guillison, Fred. E	Yarmouth, N.S.
Hartman, Louis J.	Alexandria Bay, N.Y.

‡ Double Course.

NAME	HOME ADDRESS
Haszard, John Francis	Charlottetown, P.E.I.
Hewitt, Clarence Frederick (Dent.)	Montreal, Que.
Jacobs, Abraham T.	Montreal, Que.
Jost, Harold Tremaine	Guysboro, N.S.
Kendall, Carson James	Ottawa, Ont
Kinney, Burton Oreno	Florenceville, N.B
Larose, Armand E.	Frelighsburg, Que.
Leavitt, Joseph.	Montreal, Que.
Lefebvre, Osias J. (Dent.)	Grenville, Que.
Lyons, George A.	Moncton, N.B.
McCaffery, Thomas Francis, Jr.	Montreal, Que.
McCusker, Emmet A.	Regina, Sask.
McDonald, Donald (Dent.)	Greenfield, Ont.
McEwen, Herbert Bruce.	New Westminster, B.C.
McKay, D. Russell, (Dent.)	Montreal, Que.
MacPherson, John James	Montreal, Que.
Mack, Harold James	Cornwall, Ont.
Marlatt, C. A.	Waterford, Ont.
Mendel, Frank (Dent.)	Montreal, Que.
Metcalfe, McColl	Vankleek Hill, Ont.
Miller, William Howard	Victoria, B.C.
Molleur, Charles Alfred.	Montreal, Que.
Newsam, Arthur Roland.	Barbados, B.W.I.
Oliver, Robert.	New Westminster, B.C.
Ord, William Erling.	McAdam Jct., N.B.
O'Regan, John A.	St. John, N.B.
Owens, Harold Francis	Bridgeport, Conn.
Paine, H. G. C.	St. John's, Nfld.
‡Pedley, Frank Gordon	Montreal, Que.
Pelletier, Albert (Dent.)	Montreal, Que.
Price, Reginald Francis.	Vancouver, B.C.
†Redman, Rupert Cheesman.	Barbados, B.W.I.
Reid, London Corsan.	North Bay, Ont.
Roberts, Gordon William.	Ottawa, Ont.
‡Sacksner, Moses Henry.	Montreal, Que.
Scott, William E.	Montreal, Que.
Skeete, Harold E.	Barbados, B.W.I.
Stevens, W. J.	Arnprior, Ont.
Stewart, L. A. S.	Aylmer East, Que.
Sullivan, Willis Edmund.	Bridgeford, Maine.
Titleman, Nathan (Dent.)	Montreal, Que.

FIFTH YEAR

Anderson, George Church.	Central Square, N Y.
Arnott, Charles Albert	Nelson, B.C.
Bâby, George Raymond	Hamilton, Ont.
Bayne, Archibald Roy.	Bridgetown, Barbados.
Belanger, Philippe B.	Ottawa, Ont.
†Benning, Charles Hilary	Montreal, Que.
Browne, William Alfred Sandys	Kingston, Jamaica.
Burrows, Garfield C.	Guelph, Ont.
Chapin, Claude E.	Philadelphia, N.Y.

† Repeating. ‡ Double Course.

NAME	HOME ADDRESS
Charters, Goldwin Earl	Vancouver, B.C.
Conroy, Herbert J	Peterborough, Ont.
†Daw, William F	Bay Roberts, Nfld.
Demuth, Otto	Penticton, B.C.
‡Eberts, Harold F. H	Victoria, B.C.
Elliott, Raymond Edwin	Rochester, N.Y.
Farley, Olin Everett	Lowell, Mass.
Fitzpatrick, Edward J	Meriden, Conn.
Griffith, Gerald Thomas	Sherbrooke, Que.
Hodge, George Esplin	Cornwall, Ont.
Hyndman, Alonzo B	Merrickville, Ont.
Jacobs, Joseph Herbert	Caughnawaga, Que.
Kean, Cecil D	Brookfield, Bonavista Bay, Nfld.
Kennedy, George Lionel (Dent)	Ottawa, Ont.
Knoll, John J	Daysland, Alta.
Laing, George Frederick	Windsor, Ont.
Leeson, Lavell Hall	Vancouver, B.C.
Lowry, Wilbur C	Lennoxville, Que.
McCarroll, Francis Leo	Edmonton, Alta.
MacLaren, William Russel	Sarnia, Ont.
MacNaughton, Benjamin Franklyn	Hopewell Cape, N.B
Malone, James M.F	Three Rivers, Que.
Mann, Arthur Harold	Ottawa, Ont.
Martin, Arthur John	Ottawa, Ont.
Martin, J. Herman	Berlin, Ont.
Massiah, Hallam Grey	St. Ives, Barbados.
Mingie, Walter James Ellis	Montreal, Que.
Moffatt, Howard Lee	Rialto, California
Neilson, Henry K	Arnprior, Ont.
Ramsay, Irving Daniel	Waskada, Man.
†Ryan, Edward J	Bennington, Vt.
†Sahler, S. LeRoy	Kingston, N.Y.
Sharp, Albert Davis	Summerside, P.E.I.
Smith, D. Lee	Vancouver, B.C.
Smith, Emerson C	Chesterville, Ont.
Tanney, Ansel Meredith	Iroquois, Ont.
Templeman, William	St. John's, Nfld.
Urquhart, James Alfred	Revelstoke, B.C.
Walcott, Francis Sharpe	St. James, Barbados.
Walsh, Cecil Owen	Guysboro, N.S.
Wert, Harold Clifford	Avonmore, Ont.
West, James Hinson	Moncton, N.B.
‡Wilkes, A. Burton	Brantford, Ont.
Wilson, Robert Donald	Hull, Iowa.

† Repeating. ‡ Double Course.

FACULTY OF LAW.

FIRST YEAR

NAME	HOME ADDRESS	SCHOOL LAST ATTENDED
Bernfeld, Max	Montreal, P.Q.	Montreal High School.
Common, Frank B., B.A.	Westmount, Que.	
Dewey, Alex. Gordon, M.A.	Westmount, P.Q.	Montreal High School
Dyas, Charles	Parrsboro, N.S.	Parrsboro High School
Fontaine, Gaston	Hull, P.Q.	
Galvin, William Bernard	Arnprior, Ont.	Arnprior H. S., Ont.
Garber, Michael	Montreal, P.Q.	
Hackett, F. Winfield, B.A.	Stanstead, P.Q.	Ottawa College.
Ireland, Edward Harold	Montreal, P.Q.	
Kelly, Theodore Joseph	Montreal, P.Q.	Renfrew Collegiate Inst.
Kennedy, Patrick S.	South Porcupine, Ont.	Renfrew Collegiate Institute.
Lalonde, Maurice Charles.	Montreal, P.Q.	
Langlois, Albert William.	Vancouver, B.C.	
McDonald, Dawson A.	Montreal, P.Q.	
MacIntosh, Donald Smith	West River, N.S.	Union Hall, N.S.
MacKeen, Henry P	Halifax, N.S.	
Macnaughton, Ian R.R.	Montreal, P.Q.	
Mignault, Chas. de L.	Sherbrooke, P.Q.	Sherbrooke High School.
Myerson, Moses Hyman.	Montreal, P.Q.	
Prevost, Louis de G.	Montreal, P.Q.	
*Ram, Solly	Montreal, P.Q.	Private Tuition.
Rose, Harold E. A.	Montreal, P.Q.	
Splicer, Angus.	Caughnawaga, P.Q.	Pointe aux Trembles H.S., Que.
Théberge, Réné Munro	St. Jerome, P.Q.	
Yuill, Lionel S.	Montreal, P.Q.	Victoria High School.

SECOND YEAR

Audette, J. De Gaspé	Ottawa, Ont.
Beauchamp, John Noel	Ottawa, Ont.
Bieler, John Henry, B.A.	Westmount, P.Q
*Block, Myer	Westmount, P.Q.
Brais, Philip	Montreal, P.Q.
Bruneau, A. Sydney, B.A.	Cornwall, Ont.
Budyk, Harry	Montreal, P.Q.
Charbonneau, Jean Pierre	Montreal, P.Q.
Chisholm, Hugh Alexander	Montreal, P.Q.
Coughlin, Edmund Francis Joseph	Montreal, P.Q.
Dupuis, Vincent	St. Philippe, P.Q.
Elliott, John E. C	Goderich, Ont.
Fry, Henry Stevenson, B.A.	Montreal, P.Q.
Girouard, Wilfrid	Arthabaska, P.Q
Holden, R. Clement, Jr.	Westmount, P.Q.
Jacob, Nathaniel W.	Montreal, P.Q.

*Partial.

NAME	HOME ADDRESS
Lamb, Charles Ernest	Percé, P.Q.
Lovett, Eric Almon	Montreal, P.Q.
Mathewson, James Arthur, B.A	Montreal, P.Q.
Morin, George Henri	Quebec, P.Q.
Nantel, Leopold	St. Jerome, P.Q.
Nicholson, William Cedric, B.A	Westmount, P.Q.
Phaneuf, J. Emery	St. Hughes, P.Q.
Reilly, Edmund Hugh	Montreal, P.Q.
Scott, H. Elliot, B.A	Westmount, P.Q.
*Shulman, Bennie	Montreal, P.Q.
Vautelet, Henry	Montreal, P.Q.
Vineberg, Solomon, B.A	Montreal, P.Q.

THIRD YEAR

*Babcock, Henry H	Washington, D.C.
Budyk, Joseph Alter	Montreal, P.Q.
Cameron, Norman Scott	Winchester, Ont.
Houle, F. A. Armand	Montreal, P.Q.
Howard, Wilbert Howard	Montreal, P.Q.
Kerry, John, B.A	Montreal, P.Q.
Kert, Isaac, B.A	Montreal, P.Q.
*Lavut, Louis	Montreal, P.Q.
Muhlstock, Abraham Wilfrid	Quebec, P.Q.
Mulcair, John	Westmount, P.Q.
Stalker, Archibald, M.A	Dutton, Ont.
Tyndale, Orville S., M.A	Westmount, P.Q.
Wanklyn, Andrew Angus, B.A	Montreal, P.Q

FACULTY OF AGRICULTURE.

(Section A.)

FIRST YEAR

NAME	HOME ADDRESS
Arnold, Gilbert Ewan	Grenville, Que..
Ashby, Patrick Terrence Harvey	Ste. Anne de Bellevue, Que
Brighton, Harris Weir	Edmonton, Alberta.
Buckland, Allan John	Coaticook, Que.
Buckland, William Bellas	Way's Mills, Que.
Cairnie, Gordon Child	Coaticook, Que.
Cameron, Sidney Young	Adamsville, Que.
Carleton, Henry	Ottawa, Ont.
Chauvin, Frank Bernard	Montreal, Que.
Crang, William Clifford	Westmount, Que.
Derick, Russell Arthur	Clarenceville, Que.
Dodd, John James	Beech Ridge, Que.
Flood, Robert Reginald	St. Armand Centre, Que
Hodge, Reginald George	Cookshire, Que.

*Partial.

NAME	HOME ADDRESS
Holden, Edgar Wendell	St. Armand Centre, Que.
Howard, James Alphonso	Ottawa, Ont.
Johnston, Hans Stevenson	Lascelles, Que.
Jones, Walter Norman	Westmount, Que.
Lefebvre, John Gordon	Montreal, Que.
Macfarlane, Innes Parlan	Huntingdon, Que.
Mace, Herbert Seward	Rutland, Vt.,
Matthews, George Douglas	Macdonald College, P.Q.
Newton, Miss Margaret	Plaisance, Que.
Norcross, Ashley Christopher	Lennoxville, Que.
Pope, Maxwell Henry	Richmond, Que.
Pye, Hubert Stevens	Kirkdale, Que.
Reid, Robert Jack Murray	Chateauguay Basin, Que.
Richardson, Julius Jeffry Gordon,	Chateauguay Basin, Que.
Schingh, Marie Joseph	Hull, Que.
Tilden, Samuel Foster	Westmount, Que.

(Section B.)

Aird, Douglas Maiben	Westmount, Que.
Atto, Rupert Thomas	Lennoxville, Que.
Bennett, Carroll Robert	Bury, Que.
Birks, Hobart McNeill	Montreal, Que.
Burnett, Murray Lee	Senneville, Que.
Cairncross, Walter	Ste. Anne de Bellevue, Que.
Corrigan, William Victor Lawson	Shawville, Que.
Drouin, Joseph Elzear	Park Laval, Que.
Frank, William David	Kingsbury, Que.
Hawke, Lewis Charles	Ste. Anne de Bellevue, Que
Hewson, Henry Willis	Clarenceville, Que.
Holmes, William Bernard	Ayer's Cliff, Q., R.M.D.No. 1
Loomis, Christopher Burnes	Lennoxville, Que.
MacBean, Ralph Ellsworth	Danville, Que.
Patterson, Ernest Wilbert	Rectory Hill, Que.
Paterson, William James	Westmount, Que.
Phaneuf, Romuald	St. Antoine de Vercheres, Que.
Robinson, Foster	Duclos P. O., Que.
Robinson, Herbert Harold	Danville, Que.
Roy, John Stuart	Bedford, N.S.
Sherar, William Dumaresq	New Carlisle, Que.
Sheridan, John King	Buctouche, N.B.
Small, Raymond Ross	Ottawa, Ont.
Smiley, Vertel,	R.R. 2, Shawville, Que.
Standish, Clifford George	Rougemont, Que.
Standish, William Barcraft	Rougemont Station, Que.
Todd, Robert Henry Douglas	R.M.R. No. 2, Lachute, Que.
Walsh, Cecil Eric	Shawville, Que.
Walsh, George Brock	Shawville, Que.
Wilson, Charles Andrew	Waterville, Que.
Woodwark, William Walton	St. Eustache, Que.

SECOND YEAR

NAME	HOME ADDRESS	WHERE LAST EDUCATED
Bailey, Hugh Courtnay	Barbados, B.W.I	Harrison Col., Barbados.
Bothwell, Alexander Frederick	L'Avenir, P.Q	Ulverton Model School.
Bradford, William Cecil Rogers	Lachute Mills, P.Q.	Lachute Academy.
Broad, Katie	Cambridge, N.D	North London Coll. Sc.
Cooper, William Roy	Huntingdon, P.Q.	Huntingdon Academy.
Dickson, George Herbert William	Rectory, Que	Bishop's Col., Paarl, S.A.
Dunsmore, Wilford Grant	Huntingdon, Que	Huntingdon Academy.
Elliott, Rowland Montagu	Nicolet Falls, Que	Danville Academy.
Fiske, Roland Clarence MacLeod	Florenceville, N.B.	Florenceville Con. S.
Gibbon, James Arnold	East Riverside, N.B.	St. John High School.
Gillespie, John Merton	Abbotsford, Que.	Granby High School.
Gruer, David	Aubrey, Que	
Hand, James Sanderson	Greenwich, N.Y.	Greenwich High School.
Hatch, Earle Clifton	Oromocto, N.B.	Oromocto Public School.
Hay, William Drew	Lachute, Que	Lachute Academy.
Hetherington, Thomas Gilbert	Cody's Station, N.B.	N.B. Normal School.
Hodgins, Samuel Raymond Norris	Shawville, Que	Calgary Collegiate.
Hodgins, William Everard Nellis	Shawville, Que	Shawville High School.
Hume, Douglas Thackeray	Ottawa, Ont	Ottawa Collegiate Inst.
Jones, Arthur Reginald	Westmount, Que	Westmount Academy
Longworth, Frederick John	Charlottetown,	P.E.I. Prince of Wales College.
McLeod, William Irvine	Lower Millstream, N.B.	
Milne, Arthur Robb	Pointe Claire, Que.	
Morris, Campbell	Ste. Therese de Blainville, Que.	
Muir, Ernest Boa	Howick, Que	
Newton, John Dawson	Plaisance, P.Q	Private Tuition.
Powell, John Kay	Clayton, N.Y	Ottawa University.
Rankin, Thomas Brown Gray	Birkdale, Eng	Lancashire Agri. College.
Reid, Edwin George Ballantyne	Hemmingford, Que.	St. Andrew's College.
Reid, William John	Chateauguay Basin, Que	Montreal High School.
Ross-Ross, Philip Durnford de Quincy	Ste. Anne de Bellevue, P.Q	Wykeham House, Westmount, P.Q.
Rough, David Hugh	Knowlton, P.Q.	Exeter, England.
Roy, Louis Charles	Sabrevois, Que	Feller Institute.
Russell, James Earl	New York City	Horace Mann School.
Skinner, Samuel Greenway	Macdonald College P.O	Macdonald Col. Day S.
Spendlove, John Ralston	Ayer's Cliff, Que.	
Viane, Edgar	London, England	Danntsey Agri. College
Walsh, Howard Herbert	Shawville, Que	Private Tuition.
Wood, Edgar George	Lachute, Que	Lachute Academy.

THIRD YEAR

NAME	HOME ADDRESS
Biggar, Thomas Howard	Huntingdon, P.Q.
Boulden, Charles Eric	Windsor, N.S.
Boving, George Bror	Macdonald College, P.Q.
Cochrane, Edward Stanley	Clarenceville, P.Q.
Cochrane, George Wesley	Upper Dorchester, N.B.
Collingwood, Gordon Francis	Dartmouth, N.S.
Crothers, Loring William Foreman	Venice, Que.
Fenoulhet, George	Macdonald College, P.Q.
Fraser, John Gordon Carl	Quebec, Que.
Gooderham, Charles Benjamin	Round Hill, N.S.
Hacker, James Macmillan,	North Bedeque, P.E I.
Hay, George Clunie	Lachute, Que.
Hutchings, Clarence Basdon	Ste. Anne de Bellevue, Que
Hyndman, Auston Elliott	Sherbrooke, Que.
Kelsall, Arthur	Wilmot, N.S.
Lyster, Chester	Kirkdale, Que.
McMahon, Enoch Arthur	Aylesford, N S.
McOuat, James Harold	Lachute, Que.
Moynan, John Chambers	Waterloo, Que.
Peterson, Clyde Farrington	Great Barrington, Mass.
Ste. Marie, Joseph Antoine	Moe's River, Que.
Schafheitlin, Rudolf	Canning, N.S.
Spicer, Edmund Carlyle	Spencer's Island, N.S.
Sutton, Walter Elbert	Barnston, Que.

FOURTH YEAR

Boyce, George Coonly	Athelstan, Que.
Evans, Harry Ilsley	Hampton, N.B.
Grove White, Eric	Kilbyrne, Doneraile, Co. Cork, Ireland.
Hodgins, Ellard Lee	Portage du Fort, Que
King, James Hayes	Sussex, N.B.
McCormick, James Hugh	Santuroc, Porto Rico.
McKechnie, Richard Edey	Wyman, Que.
McOuat, John Egbert	Lachute, Que.
McOuat, Leonard Christie	St. Andrews East, Que.
Mitchell, Homer Dean	Drummondville, Que.
Presley, Fred. Young	Malden, Mass.
Ricker, Earl Malcolm	Malden ,Mass.
Ross, John Hugh	River John, N.S.
Roy, Harold Bower	Sabrevois, Que.
Russell, Charles	New York, N.Y.
Sadler, Wilfrid	Ste. Anne de Bellevue, Que
Taylor, Andrew Gilmore	Dewittville, P.Q.
Westbrook, Lawrence J.	Morganville, N.Y.
Williamson, Harold Freeman	Easton, Pa.

AFFILIATED COLLEGES.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

FIRST YEAR

(AT VANCOUVER)

(*In Arts*)

Undergraduates.

Aconley, William T.
Allardyce, William J.
Allen, Percy A.
Anderson, John A.
Ballentine, Ellen M.
Barclay, George C.
Bodie, Helena
Bolton, Dorothea B.
Bolton, Florence E.
Bottger, Gevert C.
Boyd, Lillian M.
Burnett, Mary B.
Castleman, Gordon C.
Cayley, Beverley C.
Chadwick, Beatrice A.
Chatwin, Alfred H.
Clement, Elsie B.
Cowherd, Isabel M.
Coy, Norah E.
Crowe, Blanche.
Dawe, Ernest L.
Dixon, George C.
Duke, Aylmer E.
Fallows, Marjorie H.
Ferguson, Clifford J.
Fraser, Joseph G.
Fulton, Ruth V.
Gilbert, Victoria B. W.
Gill, Margaret S.
Godfrey, John D.
Godsmark, James E.
Graham, Rita R.
Grant, Rena V. A.
Griffith, Meriona E.
Hamilton, S. Perry
Harris, John S.
Harvey, Isobel
Harvie, Jean A.
Hatch, William G.
Henderson, Grace P.
Hokkyo, Junichi
Holmes, Albert T. F.
Hughes, Norman V.
Hurst, Macleod E.
Jardine, Blair G.
Jeffs, William A. C.
Johnston, Harry L.
Jones, Clytie P.
MacArthur, Donald M.
MacDonald, Jessie
Manson, Catherine D.
Martin, Genevieve M.
Martin, May
McArthur, Helen M.
McCartney, Verna
McGuire, Stella V.
McHeffey, Jessie
McIntosh, Richard H.
McLean, Eleanor M.
McNaught, Robert D.
McNeill, Hazel
McRae, Donald M.
McTavish, Alexander M.
Meadows, George D.
Meekison, Donald M.
Merrill, Gerald H.
Moore, Guy B.
Munday, Caroline P.
Munnings, Lydia M.
Munro, Alexander
Pearson, Frank M.
Ray, Godfrey H.
Robertson, Hugh M.
Rogers, William B.
Seidelman, Edward J.
Shaw, Ian A.
Smith, Grace P.
Snelgrove, Dinah H.
Stewart, Ruth
Swencisky, Dylora M.
Tamura, Kikuichi
Telford, Neil W.
Thompson, Nora K.
Timberlake, Morley
Vermilyea, Frances E.
Walsh, Violet C.

Wilband, Hazel G.
Williams, George H.
Williams, Margaret L.

Conditioned.

Anderson, Allan J.
Bain, Janet B.
Busemann, Rudolph H.
Carter, Edna A.
Elliott, Lachlan M.
Ewing, John M.
Hall, Ralph W.
Laing, Thomas M.
McInnes, Harold W.
McMyn, Jean M.
Ryan, Clarence A.
Trapp, Donovan J.

Partial.

Coughlan, Joseph C.
Emmons, William F.
Gray, William J.
Hall, Unina F.
Heynen, Robert H.
Hughes, John L.
Kearne, Geoffrey N.
MacDonald, Mary
MacDougall, James
MacPherson, Gordon
Mathers, Wilford W.
Patterson, Neil D.
Pollinger, Samuel
Rollston, Eva J.
Stewart, George W.
Taylor, Ivan M.

(*In Applied Science.*)

Undergraduates.

Austin, Clarence W.
Carter, Bayard
Doell, Raymond
Doucet, Theodore E.
Drewry, John H.
Emmons, Edward
Fowler, Grant
Fraser, George L.
Gillie, Kenneth
Goodman, Edwin M.
MacPherson, Ralph S.
McDonald, Gordon R.
McKay, Angus H.
Morgan, Theodore H.
Pim, Edgar H.
Scott, William O.C.
Stewart, Frederick C.
Williams, Joseph A.
Wilson, Frank R.
Wilson, Harold A.
Woodward, Eric R.

Conditioned.

Bickell, William A.
Cameron, Ian M.
Harvey, Oliver C.
McDougall, Alexander
Morrison, Albert H.
Shaw, Francis J. A.
Whitley, Paul N.

Partial.

Bissett, Ernest E.
Bullard, Lloyd F.
Bullard, Russell J.
Bush, Waldo M.
Ettershank, Roy H.
McKenzie, Victor C.
Rose, Hedley A.
Thompson, Douglas L.
Weart, James F.

(AT VICTORIA.)

(*In Arts.*)

Undergraduates.

Aird, Olive May
Bradshaw, Henrietta Ash
Bradshaw, Kathryn Reade
Carne, Harold Gowen
Clark, Norma Gates
Clyde, Paul H.
Dill, Nellie Lu
Fox, Marjory
Francis, Henry Gascoigne
Garesche, Maria Teresa
Gordon, Ina Helen
Grant, Muriel
Harris, Edith Lilian
Harris, Sydna Frances
Hay, Dorothea Jane
Johnson, Amy Willard

Lyons, Hermiena Marion
Marling, Samuel Earle
Marshall, Abraham Lincoln
Mitchell, H. Douglas
Murray, David Fraser
McKinnell, Mildred Marie
Nelson, Thelma
Morris, Frances
Palmer, R. C.
Pottinger, James M.
Simpson, Donald David
Stevens, Harold R.
Stubbs, George William
Tennant, Marjorie
Terry, Ilace
Toundsend, Caroline Emma
Wheeler, Arthur Lloyd
Woodward, Robert Cecil

Conditioned.

Creeden, Elsie
Kerr, Donna Enid
Lehman, Melba Beatrice
Sargent, Beatrice Hazel
Sargent, Hartley Marguerite
Wheeler, Helen Mina

Partial.

Burrell, Dorothy Grace
Drury, Douglas Richard
Forrester, Alexander
Jones, Thomas Meredith
Morgan, Arthur C.
Morrow, Mary Kathleen
Scott, Anna Gertrude

SECOND YEAR

(AT VANCOUVER)

(*In Arts.*)

Undergraduates.

Abercrombie, William T.
Abernethy, Jean B.
Adams, Robert F.
Bagley, Ralph F.
Baker, Lincoln T.
Bayly, Milton D.
Berto, John C.
Buchanan, John M.
Celle, Peter T. D.
Fraser, George L.
Galbraith, Samuel T.
Hatch, Elizabeth A.
Irving, H. Clifford
Jackson, Lorne
Johannson, Joseph S.
Mahrer, Leopold J.
Manzer, Howard L.
Mathers, Fred. D.
Maynard, Margaret E.
McTavish, Janet L.E.
Mennie, John H.
Mounce, Marion J.
Muddell, Vera E.
Mutrie, Margaret K.
Nyelstein, Herman W.
Orr, Olive M.
Peck, Kathleen M.
Rosebrugh, Josie P.
Russell, John
Shaw, Hazel J.
Smeeton, Joseph T.
Story, Evelyn S.
Suggitt, May A.
White, Helen M.

Conditioned.

Evans, Elmer
Hope, Clifford S.
Laidlaw, Kathleen N.
Lawson, Duncan M.
Lee, Annie W.
McCrimmon, May D.
McLellan, Willard G.
Miller, Arthur H.
Miller, Clive
Morrison, Loyle A.
Paterson, Georgienna U.
Paton, Thomas S.
Scott, Seman M.
Third, Jack G.
Thomson, Wesley C.
Tupper, Charles
Wright, Leroy C.
Young, George A.

Partial.

Axon, Robert
Cameron, William J.
Coates, Wells W.
Crute, Ebenezer
Goodman, William E. H.G.
Hill, Annie G.
Hodgins, Francis J.
Hughes, Thomas M.
McDowell, Hugh
Walkinshaw, Wingate R.
Wells, Charles G. P.

(*In Applied Science.*)

Undergraduates.

Clement, Carleton M.
Creery, Cuthbert J.
Drury, Eric W.
Hardie, Charles M.
Helme, Harold
Letson, Harry F. G.
Lord, Ernest E.
Payne, Wilfrid R.
Pearcy, Charles W.
Stone, Clifford E.
Wright, Charles A.

Conditioned.

Galloway, James R.
Lambert, Noel D.
MacMillan, Glen A.
Watts, Harold N.

Partial.

Davies, Joseph W.
Ingersoll, John N.
Mitchell, Robert J.

(AT VICTORIA.)

(*In Arts.*)

Undergraduates.

Archibald, Laura Mary
Ballantyne, Hazel Sarah
Beattie, Mildred R. C.
Bunt, Heber
Clark, Harry
Drader, Cecil R.
French, Charles McIntyre
Geoghegan, Dorothy Rachel
Gordon, Eric Valentine
Greenwood, Bessie
Hardwick, Margaret Sibella
Hickey, Edward John
Jackson, Ella Jardine
Kerr, Forrest A.
Pauly, Gabreille
Pollock, Theressa Alletta
Watson, Violet

Conditioned.

Lee, Clarence Edgar
Gordon, David John

Partial.

Wilson, Conrad Blackadder
Wilson, Dorothy Mae Isobel

THIRD YEAR.

(AT VANCOUVER.)

Undergraduates.

Anderson, Jessie J.
Berry, Edward W.
Carruthers, Bertha M.
Chapin, Florence B.
Creery, Ronald H.
Dawe, William A.
Des Drisay, Merrill
Dick, Agnes J.
Fountain, Sarah A.
Gibson, Harold A. F.
Gibson, Henry J.
Gibson, Thomas I.
Howell, Benjamin H.
Lanning, Mabel M.
Le Messurier, Ernest
Lett, Sherwood
Lipsett, Evelyn B.
Macleod, Jean M.
MacMillan, Isabel G.
Maxwell, William F.
Miller, Roland M.
Mills, Lennox A.
Mounce, Irene
Mulhern, John E.
Robertson, Thomas J.
Scott, Gordon W.
Shearman, Thomas S. B.
Smith, David A.
Southcott, James P.C.
Taylor, Edna M.
Thompson, Clausen A.
Vermilyea, Ada I.
Walsh, Harold E.
Wilson, William C.

Conditioned.

Dunton, Marjorie M.
Greggor, Agnes A.
Munro, Donald H.
Sexsmith, Franklin B.

Partial.

Hawe, Zella C.
Lane, Laura
Leslie, James A.
Lewis, Vera M.
McIver, Angus M.
Rae, Hugh M.
Uchida, Tose
Wallac, Brycee H.

STUDENTS IN ATTENDANCE.

SESSION 1914-1915

Students in Law		65
Students in Arts, McGill College:—		
Men—Undergraduates	265	
Partials	70	
Women—Undergraduates	106	
Partials	32	
Students in Arts, Vancouver	226	
Students in Arts, Victoria	68	
		767
Students in Applied Science:—		
Undergraduates	482	
Partials	4	
Students in Applied Science, Vancouver	55	
		541
Students in Medicine:—		
Undergraduates	380	
Partials	3	
Students in Dentistry	31	
		414
Students in Music		77
Students in Agriculture		136
		2000
Less Double Course students		33
Total		1967

UNIVERSITY AND GRADUATES' SOCIETIES.

The Students' Council of McGill University.

(OFFICERS 1915-16)

President—A. S. Lamb, Med. '16.
Vice-President—E. A. Cushing.
Controller—George C. McDonald.
Secretary—H. A. Melville.

Executive Council.

J. A. Mathewson, B.A., Law '15, Chairman.
C. J. Tidmarsh, Representative from Arts.
S. Vineberg, Representative from Law.
S. C. Baldwin, Representative from Science.
————————, Representative from Medicine.
G. Williscroft, President McGill Union.
H. Woollatt, President Rugby Club.
C. J. Kendall, President Hockey Club.
D. Sutherland, President Track Club.
E. A. Cushing, President Athletic Association.

The McGill Union

(OFFICERS 1915-16)

President—G. M. Williscroft, Sci. '16.
Vice-President—R. C. MacLachlan, Sci. '16.
Secretary—D. A. McDonald, Law '17.

House Committee.

Arts Representatives—W. H. Aird, '17; F. P. Banfield, '17.
Science Representatives—Allan Clark, '17; D. G. Dunbar, '17.
Medicine Representatives—J. D. Moore, '17; L. M. Matthews, '17.
Law Representative—H. M. Langlois, '17.
Billiard Representative—C. C. Stewart.

"McGill Daily."

(OFFICERS 1914-15.)

President—C. T. Tidmarsh.
Editor-in-Chief—H. R. Morgan.
Man. Editor—R. S. O'Meara.

Undergraduates' Literary and Debating Society.

(OFFICERS 1915-16.)

Hon. I.U.D.L. Rep.—Dr. S. B. Leacock.
President—A. G. Dewey, Law '16.
Vice-President—Philip Fisher, Arts '16.
Secretary—J. C. Farthing, Arts '18.
Assistant Secretary—T. W. L. McDermot, Arts '17.
Treasurer—H. R. Morgan, Arts '17.
I.U.D.L. Rep.—C. J. Tidmarsh, Arts '16.

Arts Undergraduates' Society.

(OFFICERS 1915-16.)

President—C. R. MacKenzie, '16.
Vice-President—P. P. Hutchison.
Treasurer—J. C. Farthing.
Secretary—T. S. Allan.

Undergraduates' Society in Applied Science.

(OFFICERS 1915-16.)

President—W. S. Sutherland, '16.
Vice-President—N. T. Binks, '16.
Secretary—D. H. Macfarlane, '17.
Treasurer—W. D. Warriner, '17.
Asst. Secretary and Reporter—F. W. G. Hale, '18.
Class Representative '18—C. L. Brooks, '18.

Undergraduates' Society in Law.

(OFFICERS 1915-16.)

President—Noel Beauchamp, '16.
Vice-President—F. W. Hackett, '16.
Treasurer—E. A. Lovett, '16.
Secretary—Frank Common, '17.

Medical Society.

(OFFICERS 1914-15.)

Hon. President—Dr. G. Armstrong.
President—J. J. Knoll.
Vice-President—W. Mingie.
Treasurer—B. Kinney.
Secretary—A. Desbrisay.
Asst. Secretary—S. McKenzie.

Philosophical Society.

(OFFICERS 1914-15.)

Hon. President—Dr. W. Caldwell.
President—C. N. Clark, Arts '16.
Vice-President—B. A. Schwartz, Arts '16.
Secretary—A. Gardner, Arts '16.
Treasurer—J. H. Schofield, Arts '16.
Councillors—Dr. Tait, Dr. J. W. A. Hickson.

Chemical Society.

(OFFICERS 1915-16.)

President—Dr. D. McIntosh.
Vice-President—Dr. H. T. Barnes.
Secretary-Treasurer—A. R. M. MacLean, M.Sc.
Executive Committee—Professors Lloyd and King.

Mining Society.

(OFFICERS 1915-16.)

Honorary President—Dr. J. B. Porter.
President—W. Weir.
Vice-President—W. H. Johns.
Secretary-Treasurer—To be elected.

Physical Society.

(OFFICERS 1914-15.)

President—Dr. H. T. Barnes.
Vice-President—Dr. D. MacIntosh.
Secretary-Treasurer—Arthur A. Scott, M.Sc.
Executive Committee—The above-named officers, with Dr. A. S. Eve, Dr. R. F. Ruttan and Dr. C. J. Lynde.

Historical Club.

(OFFICERS 1915-16.)

Honorary President—Dr. Colby.
President—C. J. Tidmarsh.
Vice-President—A. Harvey.
Secretary—R. DeWitt Scott.
Treasurer—E. Marotte.
Committee—Dr. Fryer, Prof. Laski, P. S. Fisher.
Reporter—J. C. Farthing.

Electric Club.

(Officers 1914-15.)

Hon. President—Dr. L. A. Herdt.
Hon. Vice-President—Prof. C. V. Christie.
President—W. D. Fowler.
Secretary-Treasurer—A. B. Rogers.

Railway Club.

(Officers 1915-16.)

President—E. L. Schellens.
Vice-President—C. B. Sears.
Secretary-Treasurer—E. A. Leslie.
Committee—A. Legault, V. B. Harris.

Political Economy Club.

(Officers 1915-16.)

Hon. President—Dr. Hemmeon.
Hon. Vice-President—Dr. Leacock.
President—J. H. Robertson.
Vice-President—To be elected.
Secretary—Ben Bernstein.
Treasurer—To be elected.

Cercle Francais.

(Officers 1915-16.)

Honorary President—Prof. Paul Morin.
President—R. Caverhill, Arts '17.
Vice-President—P. Brais, Law '16.
Secretary—H. R. Dale Harris, Arts '17.
Treasurer—A. G. Dewey, Law '16.

Société Française.

(Officers 1915-16.)

Honorary President—Mlle. Greterin.
President—Miss R. Weinfeld.
Vice-President—Miss R. Dawson.
Secretary-Treasurer—Miss G. Prowse.
Reporter—L. Irwin.
Representatives—IV Year, E. Block; III Year, — Newnham
II Year, R. Forde.

Delta Sigma Society.

(Officers 1914-15.)

Honorary President—Miss Cameron.
Honorary Vice-President—Miss Derick.
President—Miss Rosalie Waterman, '15.
Vice-President—Miss Jessie Paterson-Smyth, '16.
Secretary-Treasurer—Miss May Newnham, '17.

Young Men's Christian Association of McGill.

All members of McGill University, and of the affiliated Colleges, are welcomed as Associate Members; the active membership comprises those who are church members, or who subscribe to a simple statement of faith, and approve the objects of the Association.

The home of the Association is Strathcona Hall, which, in addition to affording ample accommodation for the work of the Association as a whole, provides residence for sixty-seven men.

Full particulars regarding the work of the Association are given in the annual Hand Book, and will also be supplied by the General Secretary of the Association.

(OFFICERS 1915-16.)

President—F. B. Common, M.A., Law '17.
Vice-President—G. H. Heslam, Arts '16.
2nd Vice-President—N. A. Bradley, Sci. '16.
Recording Secretary—Louis Derrer, Sci. '17.
Treasurer—Walter Sutherland, Sci. '16.

CHAIRMEN OF COMMITTEES.

Bible Study—H. E. Reilly, B.Sc.
Religious Meetings—John C. Farthing, Arts '18.
Mission Study—W. Scott, Arts '16.
Membership Committee—H. L. Ruggles, Sci. '16.
New Students' Committee—G. H. Heslam, Arts '16.
Social Service Committee—N. A. Bradley, Sci. '16.
House Committee—Fred. Gullison, Med. '16.

Young Women's Christian Association of McGill University.

(OFFICERS 1915-16.)

Honorary President—Mrs. F. D. Adams.
President—Nellie Douglas, '16.
Vice-President—Kathleen Baker, '17.
Secretary—Bernice Boyd, '18.
Treasurer—Ruth Goodwin, '18.
Association News—Florence Kilgour, '17.

CONVENERS OF COMMITTEES.

Bible Study—Jennie Symons, '17.
Mission Study—Enid Price, '17.
Membership—Mabel Corner, '16.
Extension—Ivadell Hurd, '18.
Social—Marjorie Spier, '17.

Royal Victoria College Athletic Club.

(OFFICERS 1915-16.)

Honorary President—Miss Lichtenstein.
Honorary Vice-President—Miss Cartwright.
President—Miss Mary Currie, '16.
Vice-President—Miss Marjorie Spier, '17.
Secretary-Treasurer—Miss Lois Fowler, '18.
Basket Ball Manager—Miss Grace McDonald, '16.
Tennis Manager—Miss Annie Younger, '16.
Hockey Manager—Miss Helen Fraser, '16.
Fancy Skating—Miss Gladys McCaw, '16.
Sports Manager—Miss Allie Douglas, '16.
Reporter for Daily—Miss Wanda Wyatt, '17.

Athletic Club.

(OFFICERS 1915-16.)

President—E. A. Cushing, Sci. '17.
Vice-President—D. M. Sutherland, Sci. '17.
Secretary—M. St. C. Ward, Sci. '17.

Rugby Football Club.

(OFFICERS 1915-16.)

Honorary President—Geo. C. McDonald, B.A.
Honorary Treasurer—S. C. McEvenue, Sci. '13.
President—D. H. Woollatt, Sci. '15.
Vice-President—H. McLean.
Secretary—W. Jeffrey.
Treasurer—A. Brown.
Captain— ————————
Manager— ————————

REPRESENTATIVES.

Law—P. Kennedy.
Science—F. Rounthwaite.
Medicine—J. Fawcett.
Arts—G. Magor.

Swimming Club.

(OFFICERS 1915-16.)

Hon. President—H. E. Herschorn, Law '14.
President—P. H. Patterson, Med. '18.
Vice-President—K. Rosebrugh, Sci. '16.
Secretary-Treasurer—S. H. O'Brien, Med. '18.
Manager—C. E. Pengelly, Med. '17.

REPRESENTATIVES FOR 1915-16.

Science—G. L. Trapp, Sci. '17.
Arts—C. N. Clarke, Arts '16.
Medicine—R. C. Redman, Med. '16.

Lawn Tennis Club.

(OFFICERS 1915-16.)

Honorary President—H. Ross Cleveland, Med. '15.
President—S. Clair Ward, Sci. '17.
Vice-President—Ian Ross, Com. '16.
Secretary-Treasurer—J. C. Farthing, Arts '18.

REPRESENTATIVES.

Arts—W. Aird, '17.
Science—H. A. Hartman, '18.
Medicine—E. A. Branch, '19.
Law— ————————
Outside—Mr. Lajoie.

Harriers' Club.

(OFFICERS 1914-15.)

Honorary President—Dr. C. J. Macmillan.
President—R. B. Struthers, Arts '14.
Vice-President—D. Pickard-Cambridge, Sci. '16.
Secretary-Treasurer—Henri Vautelet, Law '16.
Medical Representative—J. D. Moore, Med. '17.
Arts Representative—H. E. Ralston, '16.
Science Representative—G. F. Alberga, '15.
Law Representative—R. C. Holden, '16.

English Rugby Football Club.

(OFFICERS 1915-16.)

Hon. President—Prof. E. Brown.
President—J. O. Twinberrow.
Vice-President—M. Busby.
Secretary—C. E. M. Tuohy.
Captain—M. DesBrisay.
Representative of Western Canada—A. Clark.
Representative of U.K. and Elsewhere—Mr. McPhail.

Association Football Club.

(OFFICERS 1915-16.)

Hon. President—Professor Traquair.
President—A. MacPherson, Sci. '16.
Vice-President—Johnson, Arts '17.
Secretary-Treasurer—F. Hale, Sci. '18.

REPRESENTATIVES.

Arts—J. Trebble, '17.
Medicine—E. B. Carter, '18.
Theology—Clarke, '17.
Science—F. Hale '18.

Hockey and Skating Club.

(OFFICERS 1915-16.)

Honorary President—Dr. L. H. Roberts.
President—L. C. Montgomery, Med. '17.
Vice-President—E. A. Parsons, Sci. '17.
Secretary—E. L. Rainboth, Sci. '17.
Treasurer—T. S. Hall, Sci. '17.

REPRESENTATIVES FROM THE DIFFERENT FACULTIES.

Science—F. Andrews, Sci. '16.
Medicine—D. Ross, Med. '18.
Arts—T. Ritchie, Arts '17.
Law—W. Hackett, Law '17.

Track Club.

(OFFICERS 1915-16.)

Honorary President—Dr. Macmillan.
Honorary Treasurer—A. S. Lamb.
President—D. A. Sutherland.
Vice-President—W. H. Gerrie.
Secretary-Treasurer—H. A. Crombie.

Boxing, Fencing and Wrestling Club.

(OFFICERS 1915-16.)

Honorary President—Dr. Brydone-Jack.
President—H. O.'Leary.
Vice-President—J. MacDonald.
Secretary—I. D. Ramsay.
Boxing Representative—L. C. Montgomery.
Wrestling—F. P. Banfield.
Fencing—H. R. Wickenden.

University Settlement.

(OFFICERS 1914-15.)

President—Prof. E. Brown.
Vice-President—Prof. J. A. Dale.
Recording Secretary—Miss C. S. MacKenzie.
Corresponding Secretary—Miss S. E. Cameron.
Treasurer—Arthur M. Irvine.
Acting Headworker—W. A. I. Anglin.
Executive—Miss Isabel Brittain; Mrs. Campbell Keenan; Mrs. W. R. Miller; Mrs. D. McIntosh; A. Huntly Duff; Dr. H. R. Dunstan Gray; Dr. Milton L. Hersey; Philip Lyman; Prof. T. W. Ludlow; Miss Stuart.

Western Club of McGill University.

(OFFICERS 1915-16.)

The Club has for its objects the furthering of the interests of McGill in the four Western Provinces and the helping of new students to McGill from these Provinces.

Students from Manitoba, Saskatchewan, Alberta or British Columbia, coming to McGill for the first time, are requested to communicate with the Secretary of the Club, care The Union, McGill University, Montreal.

Honorary President—Dr. Barnes.
President—J. D. Robinson.
Vice-President—Keith Gordon.
Secretary-Treasurer—Allan T. Bone.
Asst. Secretaries—W. J. Cochrane, R. S. O'Meara.
Committee—Manitoba, F. P. Banfield; Saskatchewan, H. M. Young; Alberta, V. S. Green; British Columbia, A. E. Beckwith.

Eastern Townships Club.

(OFFICERS 1915-16.)

Honorary President—Chas. W. Colby, Ph.D.
President—C. T. Oughtred.
Vice-President—M. R. McCracken.
Treasurer—G. Miner.
Secretary—F. W. Hackett.
Committee—L. S. Planche, C. E. Manning, D. V. Gage.

The Maritime Club of McGill University.

The objects of this Club, which was formed three years ago by the amalgamation of the Nova Scotia and New Brunswick and Prince Edward Island clubs, is to promote, in every way possible, the best interests of students coming to McGill from the Maritime Provinces and Newfoundland. Such students are urgently requested to communicate with the Secretary of the Club, who will be glad to render them all assistance in his power.

(OFFICERS 1915-16.)

Honorary President—Dr. W. F. Hamilton.
Honorary Vice-President—Prof. H. M. MacKay.
President—F. E. Gullison, Med. '16.
Secretary—F. L. West, Sci. '16.
Treasurer—A. H. Chisholm, Sci. '17.
Vice-President—O. O. Lyons, Med. '17.
Additional Members—Cuyler McKenzie, Arts '18, P.E.I.
Geo. N. Belyea, Med. '19., N.B.
Thos. H. Winter, Sci. '18, Nfld.
Dan. M. Sutherland, Sci. '17, N.S.

American Club.

(OFFICERS 1915-16.)

Honorary President—Prof. W. C. Willard.
President—H. L. Gokey, Med. '17.
Vice-President—C. R. Gibbs, Sci. '16.
Secretary-Treasurer—J. E. Fuger, Sci. '17.

McGill University Oriental Society.

(OFFICERS 1914-15.)

Honorary President—Field Marshal H. R. H. The Duke of Connaught, K.C.
President—Professor C. A. Brodie Brockwell.
Vice-President—A. R. Gordon, M.A., B.D.
Secretary—Thos. J. McVittie.
Treasurer—R. J. Wilson.
Assistant Secretary-Treasurer—W. Bradbury.

Applied Science Graduates of McGill University.

The object of this organization is to keep the Applied Science Graduates in touch with one another and with their Alma Mater. This is accomplished mainly through the medium of "The Bulletin," published twice a year, and containing, among other things, alphabetical, chronological and geographical lists of the Graduates, Class News and College News.

Honorary Secretary—Nevil Norton Evans, McGill University.

Graduates' Society of McGill University.

(OFFICERS 1914.)

President—John L. Todd, B.A., D.Sc., M.D., M.R.C.S.
Vice-Presidents—E. Edwin Howard, K.C., Clement H. McLeod, M.E., Percival Molson, B.A.
Treasurer—Geo. C. McDonald, B.A.
Secretary—Wm. Stewart, B.A., B.C.L.

Alumnae Association of McGill University.

No list of officers received.

New York Graduates' Society.

(OFFICERS 1915-16.)

President—H. J. Schwartz, M.D. '98.
1st Vice-President—Gordon Gibson, M.D., '04.
2nd Vice-President————————
Treasurer—Ernest Locke, B.A., M.D., '07.
Secretary—Francis G. Wickware, B.A. '04, B.Sc. '06.

Governors—Class of 1916: Ellice McDonald, '01 and Duncan MacPherson, M.D. '96. Class of 1917: M. Casewell Heine, B.A. '98 and J. L. Joughin, M.D. '06. Class of 1918: John Godfrey Saxe, B.A. '97 and Frank Miller, D.V.S.

Non-Resident Councillors—J. C. Bracq, B.A. '81, Poughkeepsie, N.Y.; F. W. J. McKibbin, B.A. Sc. '97, Troy, N.Y.; R. Tait Mackenzie, B.A. '89, M.D. '92, Philadelphia, Pa.; Wallace Clark, B.A. '69, M.D. '71, Utica, N.Y.; R. O. King, B.A. Sc. '95; Thomas A. Addie, B.A. Sc. '02.

Ottawa Valley Graduates' Society.

(OFFICERS 1915-16.)

Honorary President—Sir James Grant, K.C.M.G.
President—W. Bell Dawson, B.A., D.Sc.
1st Vice-President—J. A. Robert, B.Sc.
2nd Vice-President—S. C. Ells, B.A., B.Sc.
3rd Vice-President—Warren S. Lyman, M.D.
Secretary—O. S. Finnie, B.Sc. (Canadian Building).
Treasurer—M. F. Connor, B.Sc.
Executive Committee—C. H. Brown, M.D.; C. T. Ballantyne, M.D.; G. LeLacheur, B.S.A.; Robert Harvie, B.A., Ph.D.; H. R. Cram, B.Sc.

McGill Alumni Association of Chicago.

(OFFICERS 1915-16.)

President—A. H. Baker, D.V.S.
Vice-President—Edward Evans, M.D., C.M., La Crosse, Wis.
2nd Vice-President—Wm. E. Walsh, M.D., C.M., Morris, Ill.
Secretary-Treasurer—Norman Kerr, M.D., C.M.
Councillors—J. F. Ryan, D.V.S.; J. M. Fraser, M.D., C.M., J. M. Moore, M.D., C.M.
Chaplain—Rev. W. A. Gustin.

McGill Graduates' Society of the Trent Valley.

No list of officers received.

McGill Graduates' Society of Honan, China.

(OFFICERS.)

President—Wm. McClure, B.A., M.D.
Vice-President—P. C. Leslie, M.D.
Secretary-Treasurer— ————————

McGill Graduates' Society of Manitoba.

(OFFICERS 1914.)

President—Geo. W. Northwood, 502 Northern Crown Bldg.
Vice-Presidents—Geo. E. Bell, Dominion Bridge Co., Winnipeg; F. Ernest Hawkins, 30 Aikins Building; Dr. Geo. F. Stephens, 604 McArthur Building; J. A. Flanders, 219 Somerset Building; Rev. J. G. Hindley, 821 McMillan Avenue.
Secretary—A. A. Young, 36 Aikins Building.
Treasurer—H. F. McDonald, 902 Confederation Life Bldg.

McGill Graduates' Society of British Columbia.

(OFFICERS 1914-15.)

Honorary President—Fraser S. Keith.
President—Dr. P. A. McLennan.
Vice-President—G. S. Eldridge.
Secretary—Dr. Murphy.
Treasurer—J. J. McNiven.
Executive Committee—John Emerson, D. E. McTaggart, G. E. Houser, Dr. Gourlay, A. R. Thompson and Dr. Green.
District Representatives—New Westminster, Dr. G. H. Manchester; Victoria, Dr. H. M. Robertson; Kootenay, R. H. Stewart; Prince Rupert, Dr. C. A. Eggart.

District of Bedford McGill Graduates' Society.

(OFFICERS 1915.)

Honorary President—Judge Lynch.
President—Dr. N. M. Harris, Knowlton, P.Q.
Vice-President for Missisquoi County—Dr. G. F. L. Fuller.
Vice-President for Brome County—Dr. A. C. Paintin.
Vice-President for Shefford County—Dr. J. A. Corcoran.
Secretary-Treasurer—Rev. Ernest M. Taylor, M.A., Knowlton, P.Q.

McGill University

SESSIONAL EXAMINATIONS, 1914-1915.

Faculty of Arts.

FOURTH YEAR (GRADUATING CLASS.)

PASSED FOR THE DEGREE OF B.A.

IN HONOURS.

(Subjects arranged alphabetically.)

1. In Chemistry and Biology.

Purdy, Annie P. ..... First Rank Honours.
Murray, Doris A. ..... Second Rank Honours.

2. In Classics.

Waterman, Rosalie A. ..... First Class Honours and Henry Chapman Gold Medal.
Withey, Albert N. ..... First Rank Honours.
Rexford, Orrin B. ..... Second Rank Honours.

3. In Economics and Political Science.

Bernstein, Ben. ..... First Rank Honours.
Oliver, Allen } equal
Oughtred, Clifford T. } First Rank Honours.
Clark, Paul S. ..... First Rank Honours (On Active Service.)
Levine, Lyon. ..... } equal
O'Halloran, Melbourne } Second Rank Honours.
Donaghue, David J. B. ..... Second Rank Honours.
Robertson, James H. H. ..... Second Rank Honours.
Burn, George D. ..... Second Rank Honours.

4. In English and French.

Dilworth, Ira. ..... First Rank Honours.
O'Meara, Kathleen M. ..... First Rank Honours in English and Second Rank Honours in French.

5. In English and History.

Harvey, Mary G. ..... First Rank Honours in English and Second Rank Honours in History.

6. In History.

Macoun, Mary.....Second Rank Honours.

7. In Hebrew.

Kaufman, Judah.....First Rank Honours.

8. In Mathematics and Physics.

Bieler, Etienne S.....First Rank Honours and Anne Molson Gold Medal. (On Active Service.)

9. In Modern Languages.

Sperber, Sarah.....First Rank Honours and Governor-General's Gold Medal.
Boyd, Jessie M.....Second Rank Honours.

FIRST RANK GENERAL STANDING.

B.A. Course.

Hardy, Netta.....Special Certificate.
Giles, Elmer S.....Special Certificate.
Story, Gladys V.....Special Certificate.
Yeo, Emsley L.....Special Certificate.
White, Laura M.....Special Certificate.

PASSED FOR THE DEGREE OF B.Sc. (in Arts) IN HONOURS.

1. In Chemistry.

Warneford, Francis H. S.....First Rank Honours.

2. In Physics.

Moran, James.....First Rank Honours.

PASSED FOR THE DEGREE OF B.A.

IN THE ORDINARY COURSE.

(In order of merit. Students of equal standing are bracketed.)

Class I. Hardy, Netta.
Giles, Elmer S.
Story, Gladys V.
McMullen, Stanley.
Yeo, Emsley L
White, Laura M.

Class II. Childs, Mary.
Lockyer, Arthur L.
Sargent, Rey A.
Kennedy, Thomas E.
Bennetts, Marjorie.
Dyke, Millicent A.

Smith, Catherine.
McNaughton, John L.
Demuth, Lillie.
Macnaghten, Ronald F.
MacLennan, Muriel M. C.
McCaw, Isabel C.
Taylor, William S.
Mitchell, Grace E.
Percival, Eleanor.
Gibb, Stewart H.
Brockwell, Muriel A.
Wornell, William P.
Upham, George A.
Bollert, Lillian G.
McNeill, Chester W. } equal.
Quin, Frank A. }
Ballantyne, Linton H.

Class III. Braidwood, Dora C.
Smith, Zoe B.
Macdonald, Lennie H. } equal.
Ross, William. }
Denny, Joseph.
McCreery, Paul L.
McDonald, Dawson A.

Aegrotat. McLean, John J. M.

Unranked. McCormack, George J.

STUDENTS IN ARTS (Ordinary Course) ON ACTIVE SERVICE QUALIFIED TO OBTAIN THE DEGREE OF B.A.

Duclos, Victor E.
Fraser, Robert A.
Jess, John A.
Reid, George E.
Ritchie, Rae G.
Skinner, Donald C.
Werry, Royal E. C.

DOUBLE COURSE STUDENTS IN ARTS AND MEDICINE QUALIFIED TO OBTAIN THE DEGREE OF B.A.

Bloomberg, Max W.
Dean, Joseph R.
Dowd, William R.
Gillanders, Henry E.
Kemp, William N.

DOUBLE COURSE STUDENTS IN ARTS AND APPLIED SCIENCE QUALIFIED TO OBTAIN THE DEGREE OF B.A.

Creaghan, T. Cyril. (On active service.)

PASSED FOR THE DEGREE OF B.Sc. (In Arts.)

In the Ordinary Course.

Johnston, Morgan M. (On active service.)

THIRD YEAR.

HONOURS.

(Subjects arranged alphabetically.)

B. A. Course.

1. *In Biology.*

Currie, Mary E.....First Rank Honours and Penhallow Prize for Botany.

2. *In Chemistry.*

Hatcher, William H.....First Rank Honours.

3. *In Chemistry and Biology.*

Young, Elrid G.....First Rank Honours.

4. *In Classics.*

McCall, Marion.....First Rank Honours.

5. *In Economics and Political Science.*

Hibbard, Charles A. L.....First Rank Honours and First Mackenzie Scholarship.
Gardner, Adolph.....Third Rank Honours and Second Mackenzie Scholarship.
Rosevear, Alfred B.....Aegrotat.

6. *In the English Language and Literature.*

Melvin, Alice.....First Rank Honours.
Henry, Ethel P.....Second Rank Honours.

7. *English and French.*

Cameron, Margaret M.....First Rank Honours.

8. *In Geology.*

Howard, Waldorf V.....First Rank Honours.

9. *In History.*

Pope, Alexander M.....First Rank Honours.

10. *In History and English.*

Tidmarsh, Clarence J.....First Rank Honours.
Hutchison, Paul P.....First Rank Honours in History, and Second Rank Honours in English.
Scott, Robert de W.....First Rank Honours in History and Second Rank Honours in English; awarded Howard Murray Scholarship (in History).

11. In Mathematics and Physics.

Douglas, Allie V.....First Rank Honours.
Clark, Robert J.....Third Rank Honours.
McCrudden, Henry E.....On active service.

12. In Modern Languages.

Talpis, Sarah K.....First Rank Honours.
Weinfeld, Rachel H.....First Rank Honours (aegrotat).

PASSED THE THIRD YEAR EXAMINATIONS

1. For Course Leading to B.A.

(Arranged in alphabetical order.)

Armstrong, Atkins, Block, Brown (C. I.) (s), Bunt, Burrell, Cameron, Clark (C. N.) (s), Clark (R. J.), Cliff, Corner, Crawford, Currie, Douglas, Fisher, Fraser, Gardner, Gray, Grigg, Hatcher, Henry, Hibbard, Howard, Hutchison, Jones, McCall, McCallum, McDonald, Macfarlane, McKenzie, Melvin, Myerson, Planche, Pope, Schofield, Schwartz (B. A.) (s.), Scott, Shearing, Sigler, Steed, Talpis, Tees, Tidmarsh, Wieland, Young, Younger.
Aegrotat: Rosevear, Weinfeld.

On Active Service.

Barrett, Copeland, McCrudden, Ralston.

2. For Course Leading to B.Sc.

McCabe.

3. Double Course in Arts and Medicine.

Fleck (s), Gordon, Hart, Parkins, Sanders.

On Active Service.

Everett.

SECOND YEAR.

HONOURS.

In Mathematics and Physics (B.A. Course).

Bourke, George W.....First Rank Honours.
Lalanne, James A.....First Rank Honours.
Smith, Letha A.....Third Rank Honours.

In Chemistry (B.Sc. Course.)

Howe, L. Isabel.....First Rank Honours.

(s) Supplemental in one subject.

Prizes.

Spier, Majorie.....Annie McIntosh Prize.
Melvin, M. Georgiana .....Coster Memorial Prize.

PASSED THE SECOND YEAR EXAMINATIONS.

1. Course Leading to B.A.

Class I.
Spier.
Newnham.
Clark.
Savage.
Melvin.

Class II.
McLellan.
MacDermot.
Magor.
Fletcher.
Wyatt.
Dawson (R.).
Towers.
Hawthorne.
Fowler.
Baker.
McCloskey.
McKenzie (T. C.).
Symons.
Elliott.
Galley.
Drabkin.
Aird.
Caverhill.
Dobson.
Herzberg.
Irwin.

Class III.
Klein.
Gittleson.
Kilgour (F. T.).
Fraser.
Hyde.
Kelly.
Mazur.
Banfield.
Allan (s).
Shaer.
Dale-Harris.
Price (s).
Morgan (s).
Latham (s).
Mackay (R.) (s).
Hicks (s).
Popliger (s), Maxwell (s) and Beattie (J. D. M.) (s), equal.

(s) Supplemental in one subject.

On Active Service.

Biggar.
Heron.
Keir.
Kilgour (J. R.).
McLennan.
McLeod (J. M.).
Proudfoot.

2. Double Course in Arts and Medicine.

Class I. None.

Class II. Holling.
Throop.
Cassidy.

Class III. Viner.
Robinson.

3. Course Leading to B.Sc.

Class I. None.

Class II. Friedman.

Class III. Stuart.
O'Meara (s).

4. For the Diploma of Commerce.

Class I. None.

Class II. Wetstein.
Ritchie.

Class III. None.

Aegrotat: Reynolds.

On Active Service.

Hutchison.

FIRST YEAR.

ADVANCED SECTION.

In Mathematics.

Class I. Binmore.
Farthing and Tousaw, equal.

Class II. Hay, Mary C.

(s) Supplemental in one subject.

Class III. Bieler.
Antliff.
Reed, M. F.

PASSED THE FIRST YEAR EXAMINATIONS.

1. For Course Leading to B.A.

Class I. Forde.
Leiter.
Cameron (S. S.).
Blampin.
Stamm.
Neuman.
MacLennan.

Class II. Grosjean.
Lande.
Walker.
Fowler (s).
Henry (L. L.).
Farthing and Hay (M. C.), equal.
Dawson (H. L.), and Taylor (R. D.), and Presner and Solomon (S.) (s), equal.
Gardner (J. G.), and Strean and Tousaw, equal.
Beaubier.
Callaghan (s).
Seller.
Herring.
Salomon (F.).
Cross.

Class III. Cohen.
Graham.
Dawson (S. A.).
Mills and Shulemson, equal.
Cherry (s).
Duff (s).
Prowse (s) and Bernstein, equal.
Levitt (s) and Terroux, equal.
Patterson (I. M.)
Cameron (G. M.) (s).
Henry (W. R.).
Nicholson.
Common (s).
Hay (E. C.).
Harrower.
Usher (s).
Black.
McGreer (s).
Gillis.
Knighton (s).
Rutherford (s).
MacKellar.
Kuhns (A. M.) (s).
Hurd (s).
Flanders (s).
Hutchison (s).
Greer (s) and Reeve (s) and Smith (A.) (s) and Lehrer (s) and Wright (s), equal.

(s) Supplemental in one subject.

On Active Service.

Armstrong (F. E.).
Branch.
Calder.
Campbell (C. W.).
Craik.
Hall (R.)
Snyder.
Sutherland (E.).
Symonds.
White (H. E.).

2. For Course Leading to B.Sc.

Class I. Binmore.

Class II. Avner.

Class III. None.

On Active Service.

Scott (H. E.).

3. For Course Leading to the Diploma of Commerce.

Class I. None.

Class II. Walsh.
Burland.
Antliff.

Class III. Bieler.
Glickman.
Goldwater (s).
Gibb (s).
Hoare (s).
Martin (s).

On Active Service.

Black.

STANDING IN THE SEVERAL SUBJECTS.

FOURTH YEAR.

BACTERIOLOGY.

Class I. Purdy.

Class II. Murray.

Class III. None.

(s) Supplemental on one subject.

BOTANY (Comparative Morphology).

Class I. Blair, R. J.

Class II. None.

Class III. None.

BOTANY (Genetics).

Class I. Purdy.
Bennetts.
Currie.
Murray.

Class II. Gibb.
Upham.

Class III. None.

BOTANY (Plant Physiology).

Class I. Young.
Blair.

Class II. None.

Class III. None.

CHEMISTRY (History).

Class I. Purdy and Warneford, equal.

Class II. Murray.

Class III. None.

CHEMISTRY (Advanced Organic).

Class I. Warneford.
Purdy.

Class II. Murray.

ECONOMICS (Economic Theory).

Class I. Hibbard.
Yeo.
Sargent.
Giles.
McMullan.

Class II. Gardner.
Taylor.
McNeill.
Denny.

Class III. Mazur.
McNaughton.
McDonald (D. A.).

ECONOMICS (Canada : Industrial and Economic Problems).

Class I. Oliver.
Donaghue and Oughtred, equal.

Class II. O'Halloran.
Bernstein.
Levine.
Burn and Sargent, equal.
Cohen and Robertson, equal.

Class III. McCaw.
Macoun.

ECONOMICS (Public Finance).

Class I. O'Halloran and Oliver, equal.
Levine.
Bernstein.
Robertson.
Oughtred.

Class II. Donaghue.
Cohen.

Class III. Ballantyne.
Ross.

HISTORY OF EDUCATION.

Class I. Snyder (E.).
McLean and Cameron, equal.
Forster and Macnaghten and Wornell and White, equal.
Corbett.
Snyder (D.) and Story, equal.
Dyke and Kennedy and Shearing and Yeo, equal.
Douglas.
Taylor and McNaughton, equal.

Class II. Brockwell and Mitchell and Percival, equal.
Denny and Macdonald, equal.
Briegel.
Kemp.
McLennan.
Melvin.
Bollert.
Heslam and Quin and Armstrong and Smith (C.), equal.
McCreery and Bennetts, equal.

Class III. McCallum.
Henry.
McNeill.

THEORY OF EDUCATION.

Class I. Corbett.
Yeo.
Taylor.
Macnaghten (R. F.).
Forster and Kemp, equal.
Briegel and White, equal.
Dilworth and Story, equal.

Class II. Douglas and O'Meara, equal.
Kennedy.
Snyder (E.)
McCreery.
McLean and McCall and Smith (C.), equal.
Bennetts and Denny, equal.
Brockwell.
Shearing and McAdam, equal.
Macdonald and Armstrong, equal.

Class III. Quin and Block, equal.
Heslam.
Sperber.
McNeill and Boyd and Bollert, equal.
Talpis.
MacLennan.
McCaw.
Burrell.
McCallum.
Braidwood.

ENGLISH COMPOSITION (1).

Class I. Dilworth and O'Meara, equal.
Thomson.
Harvey.

Class II. None.

Class III. None.

ENGLISH COMPOSITION (2).

Class I. Childs and White, equal.
Taylor.
Hardy.
Story.
McLean.
MacLennan.
Lockyer and Macdonald (L. H.), equal.

Class II. Dyke and Percival, equal.
Demuth and MacNaughton (J. L.) and Mitchell and Smith (Z. B.), and Snyder, equal.
Bollert.
Giles.
Macnaghten (R. F.)
Ballantyne and Brockwell, equal.

McNeill.
Ross.
Bennetts and McMullan and Smith (C.), equal.
Quin.
Dillon-Lawrence.

Class III. Kennedy and McCreery and Wornell, equal.
Upham.
Sargent.
Braidwood and Gibb, equal.
McDonald (D. A.).

ENGLISH LITERATURE.

(1) English Prose Fiction.

Class I. O'Meara.
Dilworth and White, equal.
Thomson.
Corbett and Dyke, equal.
Childs and Hardy and Macdonald, equal.
Lockyer.

Class II. Cliff.
Brockwell and Harvey and Tidmarsh, equal.
Bollert and Smith, equal.
Demuth.
Hutchison.
Snyder.

Class III. Wieland.
Macnaghten.
Ross and McCaw, equal.
Woolsey.
Dillon-Lawrence.

(2) Nineteenth Century Poets.

Class I. Hardy.
Harvey.
Taylor.
Smith (C.).
Thomson.
Macnaghten.
Yeo and Childs, equal.

Class II. Dyke and McDonald (G.), equal.
MacLennan.
Bennetts.
White.
Macdonald (L.).
Shearing and Brockwell and Demuth, equal.
Ross.
Fraser (H.).
Braidwood.
Scott.
Bollert.

Class III. Kennedy.
Snyder.
Woolsey and Armstrong, equal.
Mackay.
Dillon-Lawrence.

(3) Comparative Literature.

Class I. Corbett.
O'Meara.
MacSween.
Dilworth.
Lockyer.
Forster.
Harvey.
Melvin.

Class II. Henry.
Cameron and Gibb, equal.

Class III. None.

(4) The Drama, 1590–1642.

Class I. Dilworth.
Taylor.
Tidmarsh and Yeo, equal.
Thomson.

Class II. MacLennan.
Dillon-Lawrence and Hutchison, equal.

Class III. None.

(5) Prose before Dryden.

Class I. Harvey.
Cameron and Gibb, equal.
Melvin.

Class II. Henry.

Class III. None.

(6) Spenser and Milton.

Class I. Gibb.
Cameron.

Class II. Melvin.
O'Meara.
Henry.

Class III. None.

FRENCH.

Class I. Dilworth.
Sperber.
Childs.
O'Meara.

Class II. Dyke.
Thomson.
Boyd.

Class III. None.

GERMAN.

Class I. Sperber.

Class II. Dyke.
Boyd.
Percival.

Class III. Mitchell.

GEOLOGY (Advanced).

Class I. None.

Class II. MacLennan.
McCaw.

Class III. None.

GEOLOGY (General).

Class I. Giles.
McDonald (G.).
Heslam and Howard, equal.
Smith (C.).
Macfarlane.
Tees.
Howe and Schofield, equal.
Brockwell and Burrell and Friedman and Steed, equal.
Fraser.

Class II. Corner.
Quin and Seiden, equal.
Atkins.
Herbison.
Grandy.
Gray.
McCaw.

Class III. Cliff.
Wornell.
McKenzie (C. R.).
Diner and Penney, equal.
Allan.
McCurlie.
McCallum.

GREEK.

Class I. Waterman.
Withey.
Class II. Rexford.

Class III. None.

HEBREW (Honours).

Class I. Kaufman.

Class II. None.

Class III. None.

LATIN.

Class I. Waterman.
Withey.
Class II. Rexford.

Class III. None.

HISTORY.

(1) Modern European History.

Class I. Giles.
Hutchison and McCaw, equal.
Tidmarsh.
McMullan.
Macoun.
Grigg.
Pope.
Class II. Harvey and Scott, equal.
MacNeily.
Class III. Mackay and McNaughton (J. L.), equal.

(2) European History.

Class I. Scott.
Hutchison.
Class II. Pope.
Ross.
Planche.
Atkins.
Cliff.
Class III. Jones.
Younger.
Tees.
McCaw.

(3) English Constitutional History.

Class I. Macoun.
Scott.
Class II. Pope.
Tidmarsh.
Hutchison.
Grigg.
Class III. None.

(4) England—19th Century.

Class I. Macoun.

Class II. Harvey.
Demuth.
Denny.
Quin.
Wornell.
Smith (Z. B.).

Class III. Braidwood.

(5) Recent History of Great Powers.

Class I. Oughtred.
Burn.
Oliver.

Class II. Levine and O'Halloran and Donaghue, equal.
Robertson.

Class III. None.

CONSTITUTIONAL LAW.

Class I. Giles.
McMullan.

Class II. McDonald (D. A.).
Diner.

Class III. Schwartz (B.).

ROMAN LAW.

Class I. Macnaghten.

Class II. Lockyer.
Ballantyne.

Class III. Sargent.
McDonald (D. A.).

MATHEMATICS.

(1) Differential Equations.

Class I. Douglas.
McCreery.

Class II. Clark (R. J.).
McNeill.

Class III. None.

(2) Solid Geometry.

Class I. Douglas.

Class II. McCreery.
McNeill.

Class III. None.

PHILOSOPHY.

(1) Moral Philosophy.

Class I. Armstrong and Mercer (G. L.), equal.
Gardner.

Class II. Atkins and Mercer (R. F.), equal.
Craik.
Sigler.
McNaughton.
Johnston (W. J.)
Wright.

Class III. Swan.

(2) Philosophy of Religion.

Class I. Burton.
Taylor and Wornell, equal.

Class II. Kennedy.
Grandy.

Class III. None.

POLITICAL SCIENCE.

(1) Ordinary Course.

Class I. Hardy.
Pope.
Hibbard.

Class II. Sanders and Macdonald, equal.
Parkins and Demuth, equal.
Smith (Z.)
Hart.
Wieland.
Macfarlane.
Fisher.
Myerson.

Class III. Woolsey.
Diner.
Sigler.
Braidwood.
Bunt and Gordon and Grigg, equal.
Planche.
McKenzie and Fraser, equal.
Gardner.
Schwartz (Bernard).

(2) Government of Canada.

Class I. Clark.
Macoun.
Bernstein.
O'Halloran and Oughtred and Robertson, equal.
Ballantyne and Donaghue, equal.

Class II. Giles and Levine, equal.
Oliver.
Sargent.

Class III. Ritchie.

(3) Political Economy in 19th Century.

Class I. Bernstein.
Levine.
Oliver.

Class II. Hibbard.
O'Halloran.
Oughtred.
Donaghue.
Gardner.
Robertson.

Class III. Burn and Cohen, equal.

PHYSICS (Electricity and Magnetism).

Class I. Douglas.
White.
Childs.
Mitchell.

Class II. O'Meara (R. S.).
Percival.
Clark (R. J.).
Fisher and Stuart (W. C.), equal.
McCreery.

Class III. Myerson.
Sigler.

SOCIAL PSYCHOLOGY.

Class I. Lockyer.
Hardy.
Fleisig and Story, equal.

Class II. Clark (C. N.).
Smith (Z.).

Class III. Macdonald (L.).
Bollert.

ZOOLOGY.

Class I. Purdy and Story, equal.
Murray.
Bennetts.
Gibb.
Huntley.

Class II. Upham.

Class III. None.

THIRD YEAR.

BOTANY.

(1) Comparative Morphology.

Class I. Currie.
McMullan.
Young.

Class II. None.

Class III. Huntley.

(2) Plant Anatomy.

Class I. Blair.
Currie.

Class II. None.

Class III. None.

CHEMISTRY.

(1) Biological Chemistry.

Class I. Blair.
Young.
Currie.

Class II. None.

Class III. Huntley.

(2) Organic Chemistry (Ordinary).

Class I. Howe.
McCabe and Wieland, equal.
Hatcher and Macfarlane, equal.

Class II. Crawford.
McCreery.

Class III. None.

(3) Organic Chemistry (Honour).

Class I. Blair.

Class II. Young and Currie, equal.

Class III. None.

(4) Physical Chemistry.

Class I. Purdy.
Hatcher.
Young.

Class II. Murray.

Class III. None.

(5) Quantitative Analysis.

Class I. Hatcher.

Class II. None.

Class III. None.

ENGLISH COMPOSITION.

Class I. Cameron and Jones and Tidmarsh, equal.
Melvin.
Fraser and Henry and Schofield and Scott, equal.
Gibb and Macdonald and Planche and Shearing and Tees, equal.

Class II. Sanders.
Burrell and Crawford and Macfarlane, equal.
Grigg and Hutchison, equal.
Sigler.
McKenzie.
Corner.
Block and Cassidy and Gray, equal.
Wieland.
Fisher.
Fleck and McCallum and Younger, equal.
Steed.
Heslam.

Class III. Clark (C. N.).
Atkins.
Bunt and Gordon and Hart, equal.
Brown and Diner, equal.
Schwartz (B. A.).
Cliff and Parkins, equal.
Armstrong and McCaw and Myerson and Schwartz (B.), equal.

ENGLISH LITERATURE.

(1) Eighteenth Century Poetry and Drama.

Class I. Melvin.
Fraser and Henry and Tees, equal.

Class II. Macdonald, and Sanders and Younger, equal.
Block.
Armstrong and Scott, equal.
Gray.
McCallum.

Class III. Crawford.
Brown.
Fleck.

(2) Shakspeare.

Class I. Tidmarsh.
Melvin and Tees, equal.
Block.
Henry.

Class II. Gray and Sanders and Shearing, equal.
Bunt.
Hutchison.
Fleck.

Class III. Burton and Wieland.
Younger.
McCaw.
Brown.
Cliff.
Crawford and McCallum and Scott, equal.

FRENCH.

Class I. Cameron.
Seiden.
Talpis.

Class II. Gibb.
Block.
Corner and Grigg, equal.
Myerson.
Burrell.

Class III. Gray.
Diner.
Shearing and Schwartz (B. S.), equal.
Schwartz (B.).
Younger.
Jampolski.

GERMAN.

Class I. Talpis.

Class II. Block.
Burrell.
Corner.

Class III. None.

LATIN.

Class I. McCall.

Class II. None.

Class III. None.

GREEK.

Class I. McCall.

Class II. None.

Class III. None.

PHYSICS (Heat, Sound, Light).

Class I. Hatcher.
Smith.

Class II. Bourke and Young, equal.
Lalanne.
Heslam.
Friedman.
Howe.
Bunt.
Clark (C. N.).
O'Meara.

Class III. Crawford.
Stuart (W. C.).
Schwartz (B. A.).

PHILOSOPHY.

(1) Theory of Knowledge.

Class I. None.

Class II. Clark (C. N.).
MacNeily.

Class III. None.

(2) Experimental Psychology.

Class I. None.

Class II. Clark (C. N.) and Schofield, equal.

Class III. None.

ZOOLOGY.

Class I. Currie.
Howard.
Blair.

Class II. Young.

Class III. Jones.

SECOND YEAR.

BOTANY.

Class I.
Dawson.
Friedman.
Symons.
Wyatt.
McCloskey.

Class II.
Baker.
Mitchell.
Percival and Holmes, equal.
Elliott.

Class III.
Snyder.
Latham.
Hicks and Ulley, equal.

CHEMISTRY.

Class I.
Binmore.
Herzberg.
Howard.
McLellan and Holling, equal.
Patton.

Class II.
Avner and Fowler, equal.
Robinson.
Throop.
Beattie (W. W.).
Viner.
Purcell.
Clark (C. N.).
Green and Aird, equal.
Hoare.

Class III.
Cassidy.
Beckwith.
Dale-Harris.
Fraser.
Grandy.
Duval.

CHEMISTRY (Qualitative Analysis)

Class I. Howe.

Class II. None.

Class III. None.

ENGLISH COMPOSITION.

Class I.
McKenzie.
Morgan and Spier, equal.
Fletcher and Melvin, equal.

Clark and Grier and McDermot, equal.
Savage.
Johnston.
Elliott and Muir and Patton and Wyatt, equal.
Baker and Fowler and Hawthorne and McLellan and Newnham, equal.

Class II. Benjamin.
Kilgour and Pollitt, equal.
Dawson.
Wolhaupter.
Robb and Symons, equal.
Trebble.
Aird and O'Meara and Price and Smith (L. A.) and Waterman, equal.
Fraser and Holling, equal.
Mazur and McCloskey and Holland, equal.
Allan and Caverhill and Irwin, equal.
Kaufman.
Kelly and Maxwell and Towers, equal.

Class III. Gittleson and Lalanne and Sutherland and Taylor and Ulley, equal.
Allenby and McCabe, equal.
Hicks and Magor and Popliger and Viner, equal.
Galley and Shaer, equal.
Beattie (W. W.) and Dobson, equal.
O'Heir.
Drabkin and Duval and Klein and Mackay, equal.
Bourke.
Robinson.
Banfield (F. P.) and Beattie (J. D.) and Throop, equal.
Dale-Harris and Foran and Friedman, equal.
Herzberg and Hyde and Stuart (W. C.), equal.

ENGLISH LITERATURE.

Class I. Spier.
Melvin.
Newnham and MacDermot, equal.
Savage and Clark, equal.
Elliott and Muir, equal.
Fletcher and Wyatt and Towers, equal.

Class II. McKenzie.
Symons and Fowler and Pollitt, equal.
Kaufman.
Wolhaupter.
Johnston and McLellan and Robb, equal.
Hawthorne.
Mazur.
Baker and Drabkin and McCloskey and Allan, equal.
Fraser and Irwin and Trebble, equal.
Holland and Kelly and Price and Galley, equal.
Grier and Morgan, equal.
Beattie (J. D. M.).
Banfield and Beckwith, equal.

Class III. Duval and Shaer, equal.
Black.
Kilgour.
Hyde.
Taylor.
Gittleson and Maxwell, equal.
Allenby and Sutherland, equal.
Hicks.
Klein and Waterman, equal.
Ulley.
Popliger.
Mackay.

FRENCH.

Class I. Savage.
Dawson.
Magor.
Drabkin.
Spier.
Caverhill and Towers, equal.

Class II. McLellan and Wolhaupter, equal.
Cassidy.
Gittleson.
Hawthorne.
Aird.
Trebble.
Klein.

Class III. Herzberg and Duval and Irwin, equal.
Baker.
Hyde and Wyatt, equal.
Muir and Taylor, equal.
Popliger.
Fraser and Kelly and Price, equal.
Shaer and Black, equal.
Banfield (F. P.) and O'Heir, equal.

FRENCH (Advanced).

Class I. Newnham.
Benjamin.

Class II. Latham.
Viner.

Class III. None.

GERMAN.

Class I. Newnham.

Class II. Klein.
Benjamin.
Wolhaupter.
Drabkin.

Class III. Elliott.
Fletcher and Latham, equal.
Gittleson.
Popliger.
Beattie (W.) and Muir, equal.

GREEK.

Class I. None.

Class II. None.

Class III. Clark.
McLellan.
Dale-Harris and MacDermot, equal.
McCormack.
Grier.
McKenzie.

HEBREW.

Class I. Wilding.
McCurlie.
McNaught.

Class II. Bunt.
Grandy.

Class III. Penney.
Herbison.
Grier.

LATIN.

Class I. Patton.
Clark and Savage, equal.

Class II. MacDermot.
McLellan.
Throop.
Spier.
Fletcher and Newnham, equal.
Trebble.
McAdam and McCloskey, equal.
Galley.
Dawson.
Magor.
Herzberg and Klein, equal.

Class III. Towers.
Dale-Harris.
Cassidy and Gittleson, equal.
Dobson and Fraser and Holling, equal.
Beattie (W. W.) and Duval, equal.
Symons.
Irwin.
Baker and Drabkin and Melvin and Viner, equal.

Benjamin and Mazur and Robinson, equal.
Beattie (J. D.) and Wyatt, equal.
Latham.
Hyde.
Kilgour.
Elliott and Hawthorne, equal.
Caverhill.
Aird and Morgan, equal.
Taylor and Shaer and Banfield and Fowler and Purcell, equal

HISTORY (Half-Course).

Class I. Clark.
Bourke.
Melvin.
Aird.
Hawthorne.
Caverhill and Dobson and Fowler and Morgan, equal.

Class II. Savage and Spier, equal.
McKenzie and Shaer and Price, equal.
Banfield and Patton, equal.
Galley.
Hyde and Mackay and Kilgour, equal.
Herzberg.
Magor and Allan and Dawson and McCloskey and Taylor, equal.

Class III. Irwin.
O'Heir and Symons, equal.
Sutherland.
Maxwell and Ulley and Holland, equal.
MacKellar.
Graham.

POLITICAL ECONOMY (Half-Course).

Class I. Magor.
Clark.
Hawthorne.
Hyde.
Bourke.

Class II. Aird.
Banfield (F. P.).
Patton.
McCloskey.
Irwin.
Galley and Herzberg and Melvin, equal.
Mackay.
Spier.
Symons.
Allan.

Class III. Caverhill and Price, equal.
Savage.
Dobson and Kelly, equal.

Taylor.
Fowler.
Dale-Harris.
Dawson.
McKenzie.
Kilgour.
Holland.
Maxwell and O'Heir and Shaer, equal.

LOGIC (Half-Course).

Class I. Melvin.
Patton.
Benjamin.
MacDermot and Magor, equal.

Class II. Pollitt.
Smith.
Cuming.
Fletcher.

Class III. Robb.
Kilgour.
McKenzie (T. C.).
Grier.
Hicks.
Waterman.
Allenby and Matthews, equal.

PSYCHOLOGY (Half-Course).

Class I. Melvin.
Benjamin.
Cuming and Magor, equal.

Class II. Patton.
Crawford (E. M.) and Grier and MacDermot and McKenzie (T. C.), equal.

Class III. Robb.
Fletcher and Herbison, equal.
Kilgour and Smith (L. A.), equal.
Hicks and Allenby and McCurlie and Matthews and Waterman, equal.
Michaels and Pollitt, equal.
Patterson and Pike and Sutherland (A.) and Swan, equal.
Beckley and Gardner, equal.

MATHEMATICS.

(1) Algebra.

Class I. Lalanne.
Bourke.
Allan (T. S.).

Class II. Dobson.
Smith (L. A.).

Class III. None.

(2) GEOMETRY (Ordinary). [Christmas 1914].

Class I. Lalanne.
Bourke and McLeod (J. M.), equal

Class II. Kilgour.
Dobson and Allan, equal.

Class III. Smith.

(3) Spherical Trigonometry.

Class I. Dobson.
Lalanne and Bourke, equal.

Class II. None.

Class III. None.

MATHEMATICS (Honour).

Analytical Geometry.

Class I. Bourke.

Class II. Lalanne.

Class III. Smith (L. A.).

Infinitesimal Calculus

Class I. Bourke.
Lalanne.

Class II. Clark (C. N.).

Class III. Smith.

Mechanics

Class I. Lalanne.
Bourke.
MacNeily.

Class II. None.

Class III. Clark.
Smith (L. A.).
McNeill.
Dobson.

Class I. Wyatt.
Friedman.
Snyder.

Class II. Baker and Mitchell, equal.
Dawson and Elliott and Symons, equal.

Class III. Hicks.
McCloskey and Percival and Latham, equal.

COMMERCIAL COURSE.

ACCOUNTANCY.

Class I. Wetstein.

Class II. Ritchie.
Campbell.

Class III. Banfield.

COMMERCIAL LAW.

Class I. Sifton and Dovia, equal.
Wetstein.
Allan (J. C.) and Ritchie, equal.

Class II. Campbell (A. B.).
McPartlin.
Wollenberg.

Class III. Patterson (T. J.).
Soloman (Moe).
Aronson and Snell, equal.
Banfield (W. B.) and Allen (N. B.), equal.

ECONOMIC THEORY.

Class I. None.

Class II. None.

Class III. Ritchie and Wetstein, equal.
Campbell.

ENGLISH.

Class I. None.

Class II. Wetstein.

Class III. Ritchie.
Banfield and Campbell, equal.

FRENCH.

Class I. Wetstein.

Class II. Ritchie.

Class III. None.

FIRST YEAR.

ENGLISH LITERATURE AND COMPOSITION.

Class I. Blampin.
Grosjean and Leiter and Forde and Solomon, equal.

Class II. Beaubier.
Farthing and Callaghan and Graham (E.) and Walker, equal.
Cate.
Cross and Dawson (H. L.) and Dyson and Livingstone (H. E.) and Fowler and Gardner (J. G.), equal.
Binmore and Cameron (S. S.), equal.
Henry (W. R.) and Herring and Lande and Rutherford and Hetherington, equal.
Taylor (R. D.) and Duff, equal.
Presner and Terroux and Page, equal.

Class III. Beckley.
Matthews and Boyd and MacIntosh, equal.
Bernstein and Carlin and McLennan and Cherry, equal.
Henry (L. L.) and Knighton and Hay (M. C.), equal.
Seller and Usher and Cuming and Patterson (A.) and Cream and Goodwin and Hay (E. C.) and Rogers and Stamm, equal.
Hutchison and Reeve and Potter, equal.
Chisholm and Figler and Laurie and Levitt and Davison and Salomon, equal.
Cameron (G. M.) and Flanders and Prowse, equal.
Common and Neumann and Harrower and Slessor and Storey and Hurd, equal.
Patterson (I. M.) and Savage and Livingstone (C. M.), equal.
Dawson (S. A.) and Smart and Strean and Tousaw and Green and Paley and McLean and Gardner (R. C.), equal.
Cohen and Eliasoph and McGreer and Teskey and Church, equal.
Avner and McKirdy and Kuhns (A. M.) and Elliott (J. M.), equal.
Mills and Nicholson and Shuleman and Smith and Lehrer and Wright and Kuhns (I. V.) and Greer, equal.
Gillis and Reid and Younger and Armstrong and Popliger and Simpson, equal.

Passed in English Literature.

McCreary, B.R.
Keir, Margaret.

Passed in English Composition.

Black, Dora.

HISTORY.

Class I. Beaubier.
Blampin and Grosjean and Leiter, equal.
Farthing and Herring and Laurie and Callaghan and Cuming, equal.

Class II. Cate and Hutchison and Beckley and Matthews and Fowler and Stamm and Duff, equal.
Common and Cross and Lande and Cherry and Hay (M. C.) and Salomon and Walker and MacIntosh, equal.
Chisholm and Dawson (H. L.) and MacLennan and Presner and Rutherford and Seller and Shulemson and Terroux and Usher and Flanders and Cameron (S. S.) and Forde and Gardner and Hay (E. C.) and Figler and Kuhns (I. V.) and Simpson, equal.
Henry and Knighton and Neumann and Stream and Tousaw and Wright and Livingstone (H. E.) and Page and Davison (S.) and Paterson (A.) and Graham (E.) and Patterson (I. M.) and Prowse and Solomon and Teskey and Boyd, equal.

Class III. Cameron (G. M.) and Dawson (S. A.) and Eliasoph and Gillis (E.) and Levitt and Nicholson and Taylor (R. D.) and Thomas (E. A.) and Graham (R. J. E.) and Myers and Storey and Goodwin, equal.
Bernstein and Reid and Smith and Hetherington and Slessor and Pike and Grey and Savage, equal.
Carlin and Cohen and Elliott and Smart and Younger and Docks and Watson and McKirdy (W. H.) and Greer, equal.
Dyson and McGreer and Paley and Gardner (R. C.) and Cream and Hurd and Rogers and Stafford (V.), equal.
Campbell (J. E.) and Lehrer and Reeve and Kuhns (A. M.) and Michaels, equal.

FRENCH.

Class I. Solomon.
Leiter.
Walker.
Neumann.
Forde.

Class II. Cameron (S.).
Salomon (F.).
MacLennan.
Prowse.
Blampin.
Seller.
Cate.
Presner.
Eliasoph and Hutchison and Gardner, equal.

Class III. Cherry.
Cross and Dawson (L. H.), equal.
Henry (L. S.) and Tousaw and Hay (M. C.), equal.
Beaubier and Shulemson, equal.

Lande.
Flanders and Laurie and McGreer and Nicholson and Strean and Goodwin, equal.
Bernstein and Common and Taylor, equal.
Kuhns and Simpson, equal.
Henry (W. R.) and Rutherford, equal.
Smart and Greer, equal.
Docks.
Dawson (H. A.).
Cohen and Lehrer and Usher and Reeve, equal.
Patterson and Teskey, equal.
Herring.
Carlin and Graham (R. J. E.), equal.
McGibbon and Thomas and Cream and Windsor, equal.
Younger and Hurd, equal.
Graham (E.) and Gray and Hay (E. C.) and Rogers, equal.

FRENCH (Advanced).

Class I. Callaghan.

Class II. Terroux.
Mills.
Levitt.

FRENCH (B.Sc. Half-Course).

Class I. Binmore.

Class II. Avner.
Soper.

Class III. None.

GERMAN.

Class I. Stamm.
Solomon (S.)
Duff.

Class II. Salomon (F.)
Beaubier.

Class III. Cherry.
Gardner.

GERMAN (Beginners).

Class I. Binmore.

Class II. Eliasoph and Lafleur, equal.
Avner.

Class III. Kellnor.
Davis (C. F.)
Gillis.

GREEK (Beginners).

Class I. Grosjean.
Knighton.
Fowler.
McLean.
Mills.

Class II. Ulley.
Lafleur.
Sutherland.
Penney.

Class III. Dyson and Gillis (A.) and Holmes, equal.
MacKellar.
Cameron (G. M.).

LATIN.

Class I. Forde and Stamm, equal.
Cameron (S.).
Leiter and Solomon (S.), equal.
Fowler.
Blampin.
MacLennan.
Neumann and Walker, equal.

Class II. Grosjean.
Gardner.
Hay (M. C.) and Salomon (F.), equal.
Cross and Henry (L.) and Duff, equal.
Taylor.
Farthing and Shulemson and Patterson (Ida), equal.
Beaubier and Tousaw, equal.

Class III. Levitt.
Presner.
Gillis and Herring and Lande and Reeve, equal.
Cohen and Mills and Seller, equal.
Henry (W. R.) and McLean and Prowse, equal.
Strean and Usher and Wright and Cherry, equal.
Black (D.) and Teskey and Kuhns (A.), equal.
Knighton and Callaghan, equal.
Bernstein.
Chisholm and Dawson (S. A.) and Antliff, equal.
Dawson (H. L.).
Ironstone.
Carlin and McGreer and Mackellar and Nicholson, equal.
Hay (E. C.).
Cameron (G. M.) and Common and Smart and Smith and Terroux and Harrower and Hetherington and Lehrer and Graham (E.) and Greer and Grey, equal.

MATHEMATICS (Honours.)

(1) Algebra, Theory of Equations, Higher Trigonometry.

Class I. Tousaw.
Hay (M. C.) and Binmore, equal.
Farthing.

Class II. Antliff and Bieler. equal.

Class III. Reeve.

(2) Geometry (Advanced).

Class I. Binmore.

Class II. Hay (M. C.).
Farthing.

Class III. Tousaw.
Reeve.
Bieler.
Antliff.

MATHEMATICS (Ordinary).

(1) Algebra.

Class I. Dawson (H. L.) and Walsh and Forde and Neumann and Strean and Taylor, equal.
Cameron (S.).
Lande.
Burland.
Graham (E.).
Cohen and MacLennan and Stamm, equal.
Presner.
Blampin.
Elliott.
Leiter and Mills, equal.
Shulemson.
Nicholson and Walker, equal.
Hurd.
Glickman.
Beaubier and Cross and Grosjean and Henry (L.) and Seller, equal.

Class II. Callaghan and Soper, equal.
Cameron (G. M.)
Rutherford and Slessor, equal.
Bernstein.
Hutchison.
Hetherington.
McGreer.
Duff.
Salomon (F.).
Flanders and Fowler and Patterson (I. M.), equal.
Eliasoph and Levitt, equal.

Class III. Gardner.
Wonham and Prowse, equal.
Dawson (S. A.).
Cate.
Graham (R.).
Potter.
Common and Wright and Hay (E. C.) and Stafford (M.) and Stafford (V.), equal.

Kuhns (A. M.)
Younger.
McGibbon and Ross, equal.
Goodwin.
MacKellar and Lehrer, equal.
Carlin and Chisholm and Rogers, equal.

GEOMETRY [Christmas, 1914].

Class I. Craik and Blampin and Leiter and Forde, equal.
Lande.
Strean.
MacLennan and Cameron (S.) and Stamm, equal.
Cohen.
Calder and Dawson (S. A.), equal.
Cameron (G.) and Common, equal.
Graham (R.) and Herring and Antliff, equal.
Flanders.
Seller.
Dawson (H.) and Henry (L. S.), equal.
Gardner.
Nicholson.
Neumann.
Elliott.

Class II. Patterson (I. M.).
Rutherford.
Duff.
Glickman and Walker, equal.
Taylor (R. D.) and Patton (I. J.), equal.
Chisholm.
Shulemson.
Grosjean and Eliasoph, equal.
Usher and Levitt and Walsh and Presner, equal.
Bernstein and Burland and Graham (E.), equal.

Class III. Hurd and Rogers and Potter, equal.
McLean.
Merrett and Lehrer and Hay (E. C.), equal.
Lindsay (K.) and Cream, equal.
Ironstone and McCreary, equal.
Black and Goodwin, equal.
Cross.
Stafford (M.).
Reid and Beaubier, equal.
Hersey and Knighton, equal.
Gibb.
Boyd.
McLeod (K. D.) and Snyder and Solomon (S.), equal.
Wright and Wonham, equal.
Docks and Cherry and Salomon (F.), equal.
Prowse.
McGibbon and Hutchison and Bates and Stafford (V.), equal.

(3) Trigonometry.

Class I. Lande and Neumann, equal.
Strean.
Taylor (R.).
Dawson (H.).
Henry (L.) and Cameron (S.), equal.
Forde.
MacLennan.
Blampin.
Cohen.

Class II. Dawson (S.).
Gillis and Duff, equal.
Leiter and Rutherford, equal.
Graham (E.).
Mills and Presner and Shulemson, equal.
Grosjean and Hay (E. C.) and Hurd, equal.
Younger.

Class III. Henry (W.).
Walker.
Fowler.
Stamm.
Flanders.
Soper and Cream and Patterson (I.), equal.
Herring and Hetherington, equal.
Patterson (R. M.) and Green and Usher, equal.
Wright.
Seller.
Bernstein.
Graham (R. J.) and Carlin, equal.
Rogers.
Cross and Nicholson and Lehrer, equal.
Hutchison (M.)
McGreer and Callaghan and McGibbon and Wonham, equal.

PHYSICS.

Class I. Lande.
Binmore.
Antliff and Leiter and MacLennan and Forde, equal.
Tousaw.
Cameron (S.).
Blampin.
Neumann.
Dawson (S. A.) and Herring and Hay (M. C.), equal.

Class II Kuhns (A. M.).
Graham (E.).
Henry (L. E.) and Presner, equal.
Seller.
Strean.
Callaghan and Grosjean, equal.
Stamm.
Cameron (G. M.) and Cohen, equal.
Cate and Fletcher, equal.

Dawson (H. L.).
Walker.
Eliasoph and Gardner and Hurd, equal.
Bernstein.
Walsh.

Class III. Avner.
Burland and Goodwin, equal.
Cherry and Fowler, equal.
Patterson (I. M.) and Prowse and Stafford (M.), equal.
Farthing (J.) and Shulemson and Greer, equal.
Graham (R. J. E.) and McGreer and Slessor and Levitt, equal.
Wilson (A. L.) and Cream and Kuhns (I.) and Salomon (F.), equal.
Bieler and Dyson and Hay (E. C.), equal.
Reid (A. N.).
Knighton and Laurie, equal.
Elliott and Smith, equal.
Solomon (S.) and Stafford (V.), equal.
Usher and Grey, equal.
Terroux.

COMMERCIAL COURSE.

ACCOUNTANCY.

Class I. Ross.
Walsh.

Class II. Antliff.
Bieler and Burland, equal.

Class III. Goldwater.
Gibb.
Glickman.
Hoare.
Campbell.
Snetsinger.
Martin.
Merrett.

COMMERCIAL ARITHMETIC.

Class I. Antliff.
Burland.
Walsh.

Class II. Ross.

Class III. Bieler.
Goldwater.
Merrett.
Glickman.
Allen.
Gibb.

ENGLISH COMPOSITION.

Class I. Merrett.
Ross.

Class II. Walsh.
Burland.
Antliff.
Hoare.

Class III. Goldwater.
Campbell.
Gibb.
Martin.
Glickman.
Bieler.

FRENCH.

Class I. None.

Class II. Walsh.
Hoare.

Class III. Goldwater.
Ross and Burland, equal.
Gibb.
Glickman.
Martin (R.).

HISTORY AND GOVERNMENT.

Class I. Merrett.
Martin.
Antliff.
Goldwater.

Class II. Burland.
Allen.
Hoare.

Class III. Campbell.
Walsh.
Bieler.
Glickman.
Gibb.

POLITICAL ECONOMY.

Class I. Burland and Gibb, equal.

Class II. Ross.
Walsh.
Antliff and Bieler and Goldwater, equal.

Class III. Allen and Glickman and Hoare and Merrett, equal.
Martin.
Campbell.

McGill University.

SESSIONAL EXAMINATIONS, 1914-15

REPORT OF THE

Faculty of Applied Science.

Honours in the Graduating Class of the Faculty of Applied Science, and Presentation of Medals, Certificates and Prizes, as follows :—

(Names in alphabetical order.)

Bremner, Douglas—First Prize for paper read before the Undergraduates' Society of Applied Science.

Fair, Robert McCamus—Crosby Steam Gauge and Valve Company's Prize for Summer Essay.

Floyd, George David—Second Prize for paper read before the Undergraduates' Society of Applied Science; Honours in Electric Light and Power Distribution and Electric Traction.

Fowler, Walter Douglas—British Association Medal; Prize for Summer Essay; Honours in Electrical Engineering, Electrical Engineering Laboratory, Electrical Design and Electric Light and Power Distribution and Electric Traction.

Gage, Edward Victor—Greenshields Prize for Summer Essay.

Goddard, George Anson—British Association Medal; Honours in Machine Design, Mechanics of Machines, and Power Plant Design.

Green, Harold Percy—Prize for Summer Essay.

Laing, Norman Beattie—Honours in Electrical Engineering, Electrical Design, and Electric Light and Power Distribution and Electric Traction.

Loggie, Purves Primrose—Honours in Mechanics of Machines, Power Plant Design and Thermodynamics.

Shand, Errol Bertram—Honours in Electrical Engineering.

Sparling, Eric Carleton—British Association Medal; Honours in Electrical Engineering, Electrical Engineering Laboratory, Electrical Design and Electro Metallurgy.

Taylor, William Harold—Greenshields Prize for Summer Essay.

PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

(In order of merit.)

Scott, Robert Allan, Valleyfield, P.Q.
Robertson, John Louis Armour, Montreal, P.Q.
Darbyson, Allen B., Montreal, P.Q.
Perrault, John Julian, Montreal, P.Q.
Henson, Harold Gordon, Lethbridge, Alta.

(*Unranked.*)

(In alphabetical order.)

Forbes, Duncan Stuart, Vancouver, B.C.
Hyde, Walter Court, Montreal, P.Q.
Laing, Murdock McLeod, Montreal, P.Q.

PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE.

IN CHEMICAL ENGINEERING.

(In order of merit.)

Hovey, Rex William, Sherbrooke, P.Q.
Cole, Douglas Seaman, Ottawa, Ont.
Cooper, Albert B., Brandon, Man.
Morris, Frederick Jarvis, St. Regis Falls, N.Y.

IN CIVIL ENGINEERING.

(In order of merit.)

Frame, William Layton, Vancouver, B.C.
Gage, Edward Victor, Pearceton, P.Q.
Yuill, Russell, Truro, N.S.
Bremner, Douglas, Montreal, P.Q.
Innes, Colin W., Dartmouth, N.S.
Ross, George William, Westmount, P.Q.
Freeland, John James, Montreal, P.Q.
Little, Edward Caruthers, Ottawa, Ont.
Wilson, Arthur Louis, Vancouver, B.C.
Perry, Brian Rhodes, Vancouver, B.C.
Lionais, J. Edward, Montreal, P.Q.
Ribadeneyra, Antonio, Ecuador, South America.
Lauder, Lester E., Westmount, P.Q.
Fritz, William Clifford, Providence, R.I.
Alberga, George Frederick, Jamaica, B.W.I. } equal.
O'Shea, Daniel Wilfrid, St. Vincent de Paul, P.Q. }
Grant, William Roy, New Glasgow, N.S.
Hovey, John Alonzo, Sherbrooke, P.Q.
Thom, James Balfour, Montreal, P.Q.
Taylor, George Melville, Ottawa, Ont.
Page, John Albert, Brockville, Ont.
Taylor, William Harold, Winnipeg, Man.
Bonhomme, Lionel, Papineauville, P.Q.
Bignell, Hilary V., Montreal, P.Q.
Lyons, Edward Leslie, Jamaica, B.W.I.
Laddon, Isidore Macklin, Montreal, P.Q.

(*Unranked.*)

(In alphabetical order.)

Baker, Dennis, Tipperary, Ireland.
Brisbane, John Sutherland, Westmount, P.Q.
Bull, Wilford Edward, Winnipeg, Man.
Garden, Herbert Mackie Gordon, Montreal, P.Q.
Guignard, Ernest Augustus, Ottawa, Ont.
Ilsley, Charles Preston, Berwick, N.S.
Johnson, Hammond, Charlottetown, P.E.I.
Lamontagne, Yves, Montreal, P.Q.
Lindsay, Charles Crawford, Quebec, P.Q.
Patterson, Alexander Ernest, Longueuil, P.Q.
Pennock, William Britton, Ottawa, Ont.
Perry, Rolf Selby, Vancouver, B.C.
Powter, Arthur Lawrence, Westmount, P.Q.
Scott, Norman Mackie, Ottawa, Ont.
Staples, Grenville James, Winnipeg, Man.
Wilson, Calvin P., Huntly, Ont.

IN ELECTRICAL ENGINEERING.

(In order of merit.)

Sparling, Eric Carleton, South Granby, P.Q.
Fowler, Walter Douglas, Westmount, P.Q.
Shand, Errol Bertram, Windsor, N.S.
Laing, Norman Beattie, Essex, Ont.
Floyd, George David, Westville, N.S.
LaMontagne, John M., Florida, U.S.A.
Green, Harold P., Oak Leaf, Ont.
Scantlebury, Reginald Avery, Vankleek Hill, Ont.
Angus, Roy Forrest, Regina, Sask.

(*Unranked.*)

(In alphabetical order.)

Black, Alexander, St. Johns, Nfld.
Coke, Reginald Norman, Jamaica, B.W.I.
Gomes, Lawrence F., Antigua, B.W.I.
Guy, Richard William, Ottawa, Ont.
Macaulay, Douglas Lawson, Montreal, P.Q.
Williams, Thomas Anwyl, Ottawa, Ont.

IN MECHANICAL ENGINEERING.

(In order of merit.)

Goddard, George Anson, Montreal, P.Q.
Loggie, Purves Primrose, Fredericton, N.B.
McNicoll, David, Jr., Westmount, P.Q.
Summerskill, John Henry, (B.Sc.), St. Albans, Vt.
Smith, Briton Oliver, Montreal, P.Q.
Cann, Percy, Yarmouth, N.S.
Coleman, Milton Thomas, Westmount, P.Q.

(*Unranked.*)

(In alphabetical order.)

Daw, Robert A., Bay Roberts, Nfld.
Fair, Robert McCamus, Stratford, Ont.
Fellows, John Alexander, Stellarton, N.S.
McCall, James Darling, Montreal, P.Q.
Montgomery, Samuel Clifford, Winnipeg, Man.
Murray, Harcourt Amory, New Glasgow, N.S.
Skeete, Arthur Torrance, Barbadoes, B.W.I.

IN MINING ENGINEERING.

(In order of merit.)

Nelson, Maxwell Stuart, Montreal, P.Q.
Johnson, Byron Peter, Milnes Landing, B.C.
Learned, Frank Beattie, Learned Plain, P.Q.

(*Unranked.*)

(In alphabetical order.)

Buckley, Peter Burton, Genoa, Italy.
Cameron, Charles Munnis, Sydney, N.S.
Dempster, Arthur L., Rossland, B.C.
Gilchrist, George Hagar, Ottawa, Ont.
Macaulay, Colin A., Scotstown, P.Q.
Mathewson, Samuel James, Jr., Montreal, P.Q.
Webb, Charles Harry, London, England.

IN RAILWAY ENGINEERING.

(In order of merit.)

Parkins, Frank Albert, Montreal, P.Q.
Todd, Martin Milne, Galt, Ont.

(*Unranked.*)

Fyles, Lyndon Fulford, Abercorn, P.Q.

THIRD YEAR.

PRIZES.

(In alphabetical order.)

Booth, Percy, The George Creeford Browne Scholarship.
Bradley, Nicholas Hilburn, British Association Prize for Strength of Materials and Mechanics.
DesBrisay, Eric Merrill, Second J. M. McCarthy Fieldwork Prize.
Fairweather, Starr Whitney, British Association Exhibition for Strength of Materials and Mechanics.
McIntosh, Ernest Donald, First J. M. McCarthy Fieldwork Prize.
Marrotte, Edgar Samuel, Messrs. Anglins Limited, Prize for 2nd and 3rd Year courses in Building Construction.

PASSED THE SESSIONAL EXAMINATIONS.

IN ARCHITECTURE.

(In order of merit.)

Marrotte, Edgar Samuel, Montreal, P.Q.
Moulton, Vincent Clark, Westmount, P.Q.

(*Unranked.*)

(In alphabetical order.)

*Bauset, L. R. Jules, Montreal, P.Q.
*Booth, Percy, Montreal, P.Q.
*Chipman, Noel Ingersoll, Montreal, P.Q.
*Deschamps, Albert, Brockton, Mass.
Fyon, Albert Leo, Montreal, P.Q.
*McLeod, George Donald, Montreal, P.Q.

IN CHEMICAL ENGINEERING.

Hovey, Waldo Clyde, Sherbrooke, P.Q.

(*Unranked.*)

(In alphabetical order.)

*Andrews, Frederick Harold, Quebec, P.Q.
Cameron, Edward Parke, Ottawa, Ont.
*DeCew, Reginald Mark, Grand Forks, B.C.
Douglas, George Vibert, Montreal, P.Q.
Hobart, George Maxwell, Montreal, P.Q.
Malcolm, Charles G., St. John, N.B.
Penney, Edgar, Carbonear, Nfld.
*Taylor, John Ross, Westmount, P.Q.

IN CIVIL ENGINEERING.

(In order of merit.)

Bradley, Nicholas Hilburn, Calgary, Alta.
Gibbs, Charles Richard, Carthage, N.Y., U.S.A.
Wilkins, Arthur Griffith, Ottawa, Ont.
Fairweather, Starr Whitney, Ottawa, Ont.
West, Frank Leslie, Cole's Island, N.B.
Bone, Allan Turner, Calgary, Alta. } equal
McNeill, Donald Leverne, Vancouver B.C. } equal
Armstrong, Douglas Bond, Westmount, P.Q.
Lindsay, Guy Adamson, Winnipeg, Man.

---

*To pass supplemental examinations.

(*Unranked.*)

(In alphabetical order.)

*Alberga, Albert Miller, Jamaica, B.W.I.
*Bangs, Raymond Gardner, Ottawa, Ont.
*Binks, Norbert Trevotte, Ottawa, Ont.
Carnsew, Charles Noel Thomas, Vancouver, B.C.
Creaghan, T. Cyril, Newcastle, N.B.
*Crutchfield, Howard, Huntingdon, P.Q.
DesBrisay, Eric Merrill, Vancouver, B.C.
*Grant, Harold David, Vancouver, B.C.
*Hodgson, George Ritchie, Montreal, P.Q.
*Hutchinson, Samuel Arthur (B.A.), Montreal, P.Q.
*Kirkpatrick, Paul Chester, Parrsboro, N.S.
*Laffoley, Laurence Herbert, Montreal, P.Q.
Locock, Leicester, Brighton, England.
*Lutz, George Harold, Moncton, N.B.
*McCully, Robert Chesley, Salisbury, N.B.
MacEwen, Ewen, Westmount, P.Q.
McIntosh, Ernest Donald, Carleton Place, Ont.
*MacLachlan, Robert Cavan, Ottawa, Ont.
MacLean, William Henry, Crapaud, P.E.I.
McPhail, Donald Stuart, Jamaica, B.W.I.
*Marchbank, Ogilvie James, Montreal, P.Q.
*Nehin, Frank O'Brian, Buffalo, N.Y.
*Neilson, Stanley Alexander, Westmount, P.Q.
*Richardson, Samuel Sparling, Notre Dame de Grace, P.Q.
*Rittenhouse, Herbert Waterman, Montreal, P.Q.
*Ryan, Charles Wilbert, Vancouver, B.C.
Seath, W. Pringle, Montreal, P.Q.
*Sproule, John Emdon, Digby, N.S.
*Voligny, Louis Rodolphe, Montreal, P.Q.
*Wickenden, Henri Robert, Bethel, U.S.A.

IN ELECTRICAL ENGINEERING.

(In order of merit.)

Reid, John Herbert, Grand Forks, B.C.
Swenson, Paul Sidney, Westham Island, B.C.
Hight, William Russell, Newport, Vermont, U.S.A.
Silver, Benjamin L., Brooklyn, N.Y., U.S.A.

(*Unranked.*)

(In alphabetical order.)

Chalifoux, Lionel, St. Hyacinthe, P.Q.
Creighton, Charles Pearse, New Westminster, B.C.
*Fotheringham, John, Ottawa, Ont.
*Macpherson, Albert Dill, Montreal, P.Q.
*Miner, George Denison, Granby, P.Q.
Ord, Sidney Arthur, Port Carling, Ont.
*Rogers, Alvah Burphee, Montreal, P.Q.
*Rosebrugh, Kenneth, Vancouver, B.C.

---

*To pass supplemental examinations.

IN MECHANICAL ENGINEERING.

(In order of merit.)

Wilkens, John, Neilsonville, P.Q.
Klein, Bernard Albert, Westmount, P.Q.

(*Unranked.*)

(In alphabetical order.)

*Bishop, John Murphy, Montreal, P.Q.
Mucklow, Graham Fernie, Bury, Lancs., England.
Rutherford, Archibald Bowman, Westmount, P.Q.
Shrimpton, Dudley John, Montreal West, P.Q.
Twinberrow, James Oswald, Gateshead-on-Tyne, England.

IN MINING ENGINEERING.

(*Unranked.*)

(In alphabetical order.)

Emery, Herbert James, Edmonton, Alta.
Gilbert, Philip Geoffrey Britton, Toronto, Ont.
*Johns, William Henry, Greenwood, B.C.
Mackay, Arthur Harold, Sydney, C.B.
Smith, Walter Calkin, St. John, N.B.
*White, MacLeod, Sandon, B.C.

IN RAILWAY ENGINEERING.

(In order of merit.)

LeGault, Albert, Smith's Falls, Ont.
Sears, Chester Bliss, Moncton, N.B.

(*Unranked.*)

(In alphabetical order.)

*Harris, Victor Bassett, Verdun, P.Q.
*Leslie, Eric Alexander, Westmount, P.Q.
*Schellens, Eugene Levering, Groton, Conn., U.S.A.
*Smith, William Henry, Owen Sound, Ont.
*Sutherland, Walter Scroggie, Valleyfield, P.Q.

SECOND YEAR.

PRIZES.

(In alphabetical order.)

Boast, Chester Winfield, First Prize for Mathematics and Mechanics.
Eadie, Robert Scott, Second Prize for Mathematics and Mechanics.
Illsley, Hugh Percival, Messrs. Anglins Limited Prize for Architectural Drawing.
Liddy, Samuel John Wilford, Third Prize for Mathematics and Mechanics.
Nesham, Lionel Charles, Special Prize for Mathematics and Mechanics.

---

*To pass supplemental examinations.

PASSED THE SESSIONAL EXAMINATIONS.

IN ARCHITECTURE.

(*Unranked.*)

(In alphabetical order.)

Despatie, J. Onesame, Montreal, P.Q.
*Little, Harold Butler, Ottawa, Ont.
*McEvers, Harold Eric, New York, U.S.A.
McLeod, George Donald, Montreal, P.Q.
Thompson, Gratton D., Montreal, P.Q.

OTHER COURSES.

(In order of merit.)

Boast, Chester Winfield, Richmond, P.Q.
Eadie, Robert Scott, Ottawa, Ont.
Greaves, Clifford, Barbadoes, B.W.I.
Gardner, William McGregor, Montreal, P.Q.
Chisholm, Alexander Harold, Blue Mountains, N.S.
Liddy, Samuel John Wilford, Dundas, Ont.
Pcë, Alexander Spence, Montreal, P.Q.
McCulloch, Orval James, Ottawa, Ont.
Robertson, Robert McFadyen, Lachine Locks, P.Q.
Crombie, Hugh Arthur, Montreal, P.Q. } equal.
Sutherland, Daniel McLeod, New Glasgow, N.S. }
Hodgson, Jonathan Archibald, Montreal, P.Q.
Mackenzie, William Langlands, Ottawa, Ont.
Macklin, Herbert George, Fenella, Ont.
Smith, Edmund Howard, Westmount, P.Q.
Dunbar, Donald Gray, Hopewell, N.S.
Wade, Howard Rossiter, Notre Dame de Grace, P.Q.
Clark, Allan, Victoria, B.C.
Woods, Charles Halkett Carson, Montreal, P.Q.
Blackshaw, John, Montreal, P.Q. } equal.
Cushing, Eric A., Westmount, P.Q. }
Sutherland, Victor Richardson, Victoria, B.C.
Warriner, Norman Downing, Montreal, P.Q.
Charlton, Edgar Alexander, B.A. (Laval), Outremont, P.Q.
Cockfield, Alfred Ernest, Montreal, P.Q.
Cater, Henry Arthur, Montreal, P.Q.
Murphy, Albert Edward, Arnprior, Ont.
Scott, William Beverley, Dalhousie, N.B.

(*Unranked.*)

(In alphabetical order.)

*Aggiman, Jacques, Constantinople, Turkey.
Alberga, Albert Miller, Jamaica, B.W.I.
Bell, William Edward, Westmount, P.Q.

---

*To pass supplemental examinations.

Bishop, John Murphy, Montreal, P.Q.
Buchanan, Colin Archibald, Levis, P.Q.
*Buckland, Arthur Leland, Way's Mills, P.Q.
Chisholm, Arthur Harold, Ottawa, Ont.
Coombes, Bernard Dysart, Winnipeg, Man.
Davidson, David Grant, Westmount, P.Q.
*Davis, Francis Harold, Montreal, P.Q.
*Derrer, Louis Henry, Sault Ste. Marie, Ont.
*Gagnier, Oliver Joseph, Montreal, P.Q.
*Gerrie, William Houston, Kenora, Ont.
*Giles, George Reid, Lachute, P.Q.
Goodeve, Arthur Erskine, Ottawa, Ont.
Harris, Victor Bassett, Verdun, P.Q.
Hebden, Edward Raymond West, Montreal, P.Q.
Hodgson, George Ritchie, Montreal, P.Q.
Hunt, Walter George, Bury, P.Q.
Hutchinson, Samuel Arthur, Montreal, P.Q.
Jenckes, Kennan Brooks, Sherbrooke, P.Q.
Johns, William Henry, Greenwood, B.C.
*Johnston, Harry Wyatt, Outremont, P.Q.
*Kert, David, Montreal, P.Q.
Kirby, Guy Hurleston, Cookshire, P.Q.
Laing, Ross Richard, Westmount, P.Q.
*La Prairie, Charles Leonard Richard, Montreal, P.Q.
Loy, John Austin, Ottawa, Ont.
McCracken, Merrick Rennie, Danville, P.Q.
Macdonald, Donald Monteith, Edmonton, Alta.
Macfarlane, Donald Henry, Sherbrooke, P.Q.
MacLachlan, Robert Covan, Ottawa, Ont.
Macpherson, Albert Dill, Montreal, P.Q.
*Macpherson, Hugh, New Glasgow, N.S.
Mawdsley, James Buckland, Estevan, Sask.
Miner, George Denison, Granby, P.Q.
Parke, James Scott, Montreal, P.Q.
*Pope, Eric Julyan, Westmount, P.Q.
Rittenhouse, Herbert Waterman, Montreal, P.Q.
*Rochester, Gordon Hamilton, Haileybury, Ont.
Rosebrugh, Kenneth, Vancouver, B.C.
*Ross-Ross, Donald Ronald de Courcy, Ste. Anne de Bellevue, P.Q.
Rutherford, William Jackson, Westmount, P.Q.
*Sandison, William Ross, Winnipeg, Man.
Schellens, Eugene Levering, Groton, Conn., U.S.A.
Stewart, Malcolm Gordon, Montreal, P.Q.
*Strong, Randolph William, Cambria, P.Q.
Tracy, Thomas Leonard, Vancouver, B.C.
Voligny, Louis Rodolphe, Montreal, P.Q.
*Walter, Arthur William, Westmount, P.Q.
*Ward, Melville Ernest St. Clair, Kingston, Ont.
Wickenden, Henri Robert, Bethel, Conn., U.S.A.
Williscroft, George Murdock, Victoria, B.C.
*Wilson, Eldon Parker, Ottawa, Ont.
*Wilson, James Kinnear, Sherbrooke, P.Q.

---

*To pass supplemental examinations.

FIRST YEAR.

PRIZES.

(In alphabetical order.)

Gould, Walter Stilson, First Prize for Mathematics, Descriptive Geometry and Physics.
Jelly, Calvin Sherwood, Scott Exhibition for Mathematics, Descriptive Geometry and Physics.
Weibel, Emil Edwin, Second Prize for Mathematics, Descriptive Geometry and Physics, and Fleet Shopwork Prize.

PASSED THE SESSIONAL EXAMINATIONS.

IN ARCHITECTURE.

(*Unranked.*)

(In alphabetical order.)

Bauset, L.R. Jules, Montreal, P.Q.
Harvey, Allen Davenport, Montreal, P.Q.
Labelle, Henri Sicotte, Westmount, P.Q.
McEvers, Harold Eric, New York City, U.S.A.
Parsons, Lloyd Holman, Westmount, P.Q.
Thomas, Phillip, Montreal, P.Q.
Todd, John Jackson, New York City, U.S.A.

OTHER COURSES.

(In order of merit.)

Jelly, Calvin Sherwood, Carleton Place, Ont.
Weibel, Emil Edwin, Montreal, P.Q.
Gould, Walter Stilson, London, Ont.
Wallace, George Arthur, Granby, P.Q.
Tucker, Bryant Burgess, South Molten, North Devon, England.
Ford, Robert, Ottawa, Ont.
Parke, Charles Sager, Hamilton, Ont.
Conroy, Joseph Matthew, Britannia Bay, Ont. } equal.
Dionne, Joseph Alexandre, Montreal, P.Q. }
Winfield, Edwin, Fort William, Ont.
Jordan, Leo Joachim, Lindsay, Ont.
Timmerman, Everett Drinkwater, Montreal, P.Q.
Black, Edgar Pattyson, Montreal, P.Q.
Wickenden, John Francois, Bethel, Conn., U.S.A.
Dörken, Herman Rudolf, Westmount, P.Q.
Fox, Thomas John Joseph, New York City, U.S.A. } equal.
Harris, Clifford Norton, Verdun, P.Q. }
Cann, Frederick Lorne, Peterborough, Ont.
Mitchell, John Clarence, London, Ont.
Way, William Russell, Farnham, P.Q.
Vessot, Charles Ulysses Robert, Ottawa, Ont.
Purcell, John Metcalfe, Cobden, Ont.
Louttit, William Charles, Montreal, P.Q. } equal.
White, James Percy, Winnipeg, Man. }
Camp, Eric William, Westmount, P.Q.
Fraser, Walter Lloyd, Burford, Ont.

(Unranked.)

(In alphabetical order.)

Abbott-Smith, Reginald Bancroft, Westmount, P.Q.
Baillie, George Irvine, Montreal, P.Q.
Balm, Charles Howard, Toronto, Ont.
Binks, Norbert Trevotte, Ottawa, Ont.
Bowie, Gordon Harper, Ottawa, Ont.
Brooks, Charles Lennox, Montreal, P.Q.
*Copping, Allan Blythe, Westmount, P.Q.
Cumming, Eric Cyril, St. James, Man.
Farnworth, George Jarvis, Ottawa, Ont.
Ferguson, George Harry, Nelson, B.C.
Ferguson, John Alexander, Nelson, B.C.
Forbes, Karl, Montreal, P.Q.
Fuger, Joseph Edward, Bay City, Mich., U.S.A.
Gagnier, Oliver Joseph, Montreal, P.Q.
Gerrie, William Houston, Kenora, Ont.
Hall, Terence Smythe, Lennoxville, P.Q.
*Hastings, Walter Hindson, Regina, Sask.
*Hulburd, William Chauncey, Cowansville, P.Q.
Hyndman, Edward Douglas, Sherbrooke, P.Q.
Johnson, Lawrence Earle, Ottawa, Ont.
*Kay, Stuart Evans, Montreal, P.Q.
*Kelly, John Christin, Edmonton, Alta.
LaPrairie, Charles Leonard Richard, Montreal, P.Q.
Lester, William Ronald, Westmount, P.Q.
Livingstone, Edward Archibald, Washington, D.C., U.S.A.
Lowe, Edward Jackson, Metcalfe, Ont.
McLeod, John Edward, Bridgeport, Conn., U.S.A.
*Morphy, Hugh Boulton, Listowel, Ont.
*Morrisette, Gordon Joseph, Greenshields, Alta
*Nutter, Jack Caswell, Lennoxville, P.Q.
*Paddon, John Edmund, Montreal, P.Q.
Parsons, Eric Allan, Montreal, P.Q.
Patterson, James Freebairn, Montreal, P.Q.
Perrault, Rene, Montreal, P.Q.
Petford, Herbert Stanley, St. Thomas, D.W.I.
Pick, Charles Herbert, Westmount, P.Q.
Pope, Eric Julyan, Westmount, P.Q.
*Reiffenstein, John Christopher, Westmount, P.Q.
Rochester, Gordon Hamilton, Haileybury, Ont.
Rochester, Lloyd B., Ottawa, Ont.
Ross-Ross, Donald Ronald de Courcy, Ste. Anne de Bellevue, P.Q.
*Rutherford, William King, Westmount, P.Q.
Scott, George, Westmount, P.Q.
Shanly, James, Montreal, P.Q.
*Shapter, Carl, Montreal, P.Q.
Smithers, Gordon Theodore, Westmount, P.Q.
Strong, Randolph William, Cambria, P.Q.
Walter, Arthur William, Westmount, P.Q.
Ward, Melville Ernest St. Clair, Kingston, Ont.
Weldon, Richard Lawrence, Winnipeg, Man.

---

*To pass supplemental examinations.

STANDING IN THE SEVERAL SUBJECTS.

(1) STUDENTS IN ARCHITECTURE.

ARCHITECTURAL DESIGN.

Fourth Year.—Grade C.—Class I.—None. *Class II.*—Robertson, Scott (R. A.). *Class III.*—Forbes (N. B.), Darbyson, Perrault, Henson.
Third Year.—Grade B.—Class I.—Booth, Harvey. *Class II.*—Chipman, McLeod, Marrotte, *Class III.*—Deschamps, Bauset, Moulton.
Second Year.—Grade A.— Class I.—Illsley. *Class II.*—McEvers, Little, Thomas. *Class III.*—Labelle, Thompson (G. D.), Potter.

ARCHITECTURAL DRAWING.

Fourth Year.—Class I.—Darbyson. *Class II.*—Forbes (N. B.), and Fyon, equal; Robertson, Moulton. *Class III.*—Scott (R. A.), Despatie, Henson: Perrault and Paisley, equal.
Third Year.—Class I.—Marrotte, Booth, Thompson. *Class III.*—Chipman, McLeod, Deschamps, *Class III.*—Bauset.
Second Year.—Class I.—None. *Class II.*—Illsley. *Class III.*—McEvers, Little, Wilson (A. L.), Hutchison; Koelle and Labelle, equal.

ARCHITECTURAL GEOMETRY.

First Year.—Class I.—Ouimet, Thompson, Potter. *Class II.*—Illsley. *Class III.*—None.

ARCHITECTURAL PRACTICE.

Fourth Year.—Class I.—Darbyson. *Class II.*—Paisley and Scott (R. A.) and Robertson, equal; Perrault. *Class III.*—Henson; Fenster and Forbes (N. B.), equal; Despatie.

BUILDING CONSTRUCTION.

Second Year.—Class I.—Illsley, Labelle, McEvers. *Class II.*—Wilson (A. L.). *Class III.*—Thompson (G. D.), Little, Hutchison.

BUILDING DETAILS.

Second Year.—Class I.—Illsley, McEvers, Labelle. *Class II.*—Little; Wilson (A. L.) and Thompson (G. D.), equal. *Class III.*—None.

ELEMENTS OF ARCHITECTURE.

First Year.—Class I.—Thompson and Pitts, equal. *Class II.*—None. *Class III.*—Birks and Potter, equal.

ELEMENTS OF COMPOSITION.

Second Year.—Class I.—Little, Illsley. *Class II.*—McEvers, Thompson (G. D.), Koelle, Pitts. *Class III.*—Labelle, Hutchison.

ESSAYS.

Third Year.—Class I.—Thompson. *Class II.*—Marrotte, Deschamps, Booth. *Class III.*—Chipman.

FREEHAND DRAWING.

First Year.—Class I.—None. *Class II.*—Illsley, Birks. *Class. III.*—Potter.

GRAPHICAL STATICS.

Fourth Year.—Class I.—Scott, Perrault. *Class II.*—Darbyson, Henson. *Class III.*—Paisley, Despatie, Fyon, Robertson, Forbes (N. B.).

HEATING AND VENTILATION.

Third Year.—Class I.—Moulton, Chipman. *Class II.*—Booth, Marrotte, McLeod. *Class III.*—Deschamps, Bauset.

HISTORY (GENERAL).

Second and First Years.—Class I.—Little, McEvers. *Class II.*—McLeod. *Class III.*—Labelle and Pitts, equal; Bauset and Koelle and Paisley, equal.

HISTORY OF ARCHITECTURE.

Fourth and Third Years.—Class I.—Darbyson, Scott (R. A.). *Class II.*—Henson; McLeod and Moulton, equal; Marrotte, Booth. *Class III.* Deschamps, Robertson (J. L.), Thompson, Despatie, Forbes (N. B.), Bauset, Perrault.

Second Year.—Class I.—Illsley and McEvers, equal; Labelle. *Class II.*—Little, Thompson (W. A.), Koelle, *Class III.*—None.

HYGIENE.

Third Year.—Class I.—None. *Class II*—.Chipman and Pitts, equal; Moulton, Deschamps, Booth, Marrotte. *Class III.*—Thompson, Bauset, McLeod.

MATHEMATICS.

ALGEBRA.

Second Year.—Class I.—Koelle. *Class II.*—Little. *Class III.*—McEvers, Thomas.

GEOMETRY.

Second Year.—Class I.—None. *Class II.*—None. *Class III.*—Thomas.

MODELLING.

Fourth Year.—Class I.—Fyon and Parsons and Robertson, equal; Henson and Laing and Despatie, equal; Darbyson and Paisley and Fenster, equal. *Class II.*—Forbes (D. S.) and Forbes (N. B.), equal; Perrault and Scott (R. A.), equal. *Class III.*—None.

Third Year.—Class I.—Chipman; Bauset and Deschamps and Moulton and Thompson, equal; Despatie and Ouimet, equal; Hutchison, Marrotte. *Class II.*—McLeod, Booth. *Class III.*—None.

Second Year.—Class I.—Little, Labelle, Harvey; Birks and McEvers and Thompson (G. D.), equal. *Class II.*—Wilson (A. L.), Koelle, *Class III.*—None.

MODERN ARCHITECTURE.

Fourth Year.—*Class I.*—Scott (R. A.), Robertson, Darbyson. *Class II.*—Henson and Perrault, equal; Forbes (N. B.), Moulton. *Class III.*—Fyon, Parsons.

ORNAMENT AND DECORATION (FIRST TERM).

Third and Second Years.—*Class I.*—None. *Class II.*—McEvers and Booth, equal; Marrotte, Harvey; Illsley and Little, equal; Koelle; Labelle and Chipman, equal; McLeod. *Class III.*—Pitts, Thompson (G. D.), Bauset, Hutchison, Deschamps, Paisley, Thomas.

ORNAMENT AND DECORATION (SECOND TERM).

Third and Second Years.—*Class I.*—Booth (P.), Marrotte, Little. *Class II.*—Bauset and Chipman and Deschamps, equal; McLeod. *Class III.*—Thompson, (G. D.), Koelle, Labelle, McEvers, Fenster; Hutchison and Pitts, equal; Illsley.

PERSPECTIVE DRAWING.

Third Year.—*Class I.*—Booth and Chipman, equal; Marrotte. *Class II.*—Bauset. *Class III.*—McLeod, Deschamps, Thompson, Despatie.

PHYSICS.

First Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Wilson.

PHYSICS LABORATORY.

First Year.—*Class I.*—Wilson. *Class II.*—None. *Class III.*—None.

STRUCTURAL DESIGN.

Fourth Year.—*Class I.*—Robertson, Forbes (N. B.), Perrault, Paisley. *Class II.*—Darbyson and Henson, equal; Scott, Fyon, Despatie. *Class III.*—None.

STRUCTURAL DETAIL.

Third Year.—*Class I.*—Deschamps, Marrotte, Booth, Moulton, Bauset, McLeod, Chipman. *Class II.*—Parsons. *Class III.*—None.

STRUCTURAL ENGINEERING.

Third Year.—*Class I.*—Moulton, Deschamps, Marrotte, Booth, Bauset. *Class II.*—McLeod. *Class III.*—None.

SUMMER READING AND WORK.

Fourth Year.—*Class I.*—Scott, Fyon; Henson and Perrault, equal; Robertson. *Class II.*—Forbes (N. B.); Darbyson and Laing, equal; Forbes (D. S.), Parsons. *Class III.*—Fenster.

Third Year.—*Class I.*—Marrotte, Booth. *Class II.*—Moulton, Deschamps, Hutchison. *Class III.*—Chipman.

Second Year.—*Class I.*—Thompson, Todd, McEvers. *Class II.*—Thomas, Harvey, Koelle. *Class III.*—Stockwell.

THEORY OF DESIGN.

Third Year.—Class I.—Booth, Harvey. *Class II.*—Robertson (J. L. A.), Scott (R. A.), Chipman, Ouimet; McLeod and Pitts, equal; Marotte. *Class III.*—Forbes (N. B.), Darbyson, Henson, Deschamps, Perrault, Bauset, Moulton; Fyon and Paisley and Parsons, equal.

THEORY OF PLANNING.

Fourth Year.—Class I.—None. *Class II.*—Robertson (J. L. A.), Scott (R. A.), Pitts. *Class III.*—Forbes (N. B.), Darbyson, Perrault, Henson.

(2) STUDENTS IN OTHER COURSES.

ACCOUNTING.

Fourth Year.—Class I.—Todd. *Class II.*—None. *Class III.*—Schellens

APPLIED ELECTRO-CHEMISTRY AND LABORATORY.

Fourth Year.—Class I.—Sparling, LaMontagne, Hovey, Fowler. *Class II*—Floyd; Black and Guy and Shand, equal; Angus and Laing, equal; Cooper and Morris, equal; Scantlebury. *Class III.*—Cole.

BIOLOGICAL AND FOOD CHEMISTRY.

Fourth Year.—Class I.—None. *Class II.*—Hovey, Morris, Cooper, Cole. *Class III.*—None.

BRIDGE DESIGN.

Fourth Year.—Class I.—Gage, Taylor (W. H.). *Class II.*—Innes and Yuill, equal; Frame, Lionais, Perry (B. R.); Alberga and Brisbane and Little, equal; Laddon, Ross; Hovey and O'Shea, equal; Freeland, Bremner; Lauder and Lyons and Ribadeneyra, equal. *Class III.*—Bull and Fritz, equal; Garden, Bonhomme, Patterson; Page and Taylor (G. M.), and Thom, equal; Wilson (A. L.), Bell, Bignell, Grant.

CHEMISTRY (GENERAL).

Second Year.—Class I.—Eadie, Greaves, Kert, Giles, Smith (E. H.), Macklin, Hodgson; Gardner and Liddy and Mackenzie, equal; Chisholm and Robertson, equal; Boast and Poë, equal; Crombie, Clark; Galloway and Walter, equal. *Class II.*—McCulloch, Cushing; Davis and Scott (W. B.), equal; Dunbar; Stone and Sutherland (D. M.), equal; Blackshaw and Wade, equal; Cater and Smith (J. W. H.), equal; Charlton and Gagnier and Gerrie, equal; Wilson (E. P.); Pitt and Ward, equal; Boyd and Payne and Ross-Ross and Wright, equal; Ferguson (J. A.); Drury and Harkness and Jacques and Rochester (G. H.) and Smith (H. E.), equal. *Class III.*—Clerk and Cockfield and Lowe and Strong and Woods, equal; Balm and Sutherland (V. R.), equal; Aggiman; Derrer and Lambert and McLeod, equal; LaPrairie and Oliver and Watts equal; Letson and Pearcy and Scott (G.), equal; Murphy, Shanly, Macpherson and Pope, equal; MacMillan, Wilson (J. K.); Baillie and Carroll and Helme and Kelly, equal.

CHEMISTRY (HISTORICAL).

Fourth Year.—Class I.—None. *Class II.*—Hovey, Cole. *Class III.*—Cooper, Morris.

CHEMISTRY (INDUSTRIAL).

Fourth Year.—Class I.—None. *Class II.*—Morris; Cooper and Hovey, equal; *Class III.*—Cole.

CHEMISTRY (INORGANIC QUALITATIVE ANALYSIS).

Third Year.—Class I.—None. *Class II.*—Johns. *Class III.*—Weir.

CHEMISTRY (INORGANIC QUANTITATIVE ANALYSIS).

Third Year.—Class I.—Hovey, Taylor, Penney. *Class II.*—Hobart; Andrews and DeCew, equal; Harshaw, Douglas. *Class III.*—Seale, Malcolm, Cameron.

CHEMISTRY (ORGANIC).

Third Year.—Class I.—DeCew. *Class II.*—Taylor. *Class III.*—Hovey, Kilpin.

CHEMISTRY AND LABORATORY (ORGANIC).

Fourth Year.—Class I.—None. *Class II.*—Morris, Hovey (R. W.), Cooper. *Class III.*—Cole.

CHEMISTRY AND LABORATORY (PHYSICAL).

Fourth Year.—Class I.—None. *Class II.*—Morris, Hovey. *Class III.*—Cole, Cooper.

CHEMISTRY (PHYSICAL).

Third Year.—Class I.—Hovey, DeCew. *Class II.*—Kilpin and Taylor, equal; Andrews and Seale, equal. *Class III.*—Harshaw.

DESCRIPTIVE GEOMETRY.

First Year.—Class I.—Gould and Jelly and Wallace, equal; Weibel, Morgan, Conroy, Mitchell, Parke, Morrisette, Wickenden; Fox and Tucker and Scott (W. O. C.), equal. *Class II.*—Cann and Harris and Paddon and Pim, equal; Doell, Camp, Dionne, Johnston, Farley, Wait; Vessot and White, equal; Travis and Winfield, equal; Bissett and Black and Jordan and Louttit, equal; Timmerman, Ford. *Class III.*—Hulburd: Copping and Drewry and McDonald and Rutherford, equal; Rose and Way, equal; Dörken and Hastings, equal; Blachford; Carter and Hale and Morphy, equal; Austin and Shiedel, equal; Larin; Bullard (L. F.) and Purcell and Stewart, equal; Foster and Kay, equal; Ettershank and Thompson, equal; Brophy and Cameron and Emmons and Fraser and Gillie and Kalem and Lake and Lanctot and Marson and Nutter and Shapter and Smith (D. T.) and Wheeler and Whitley and Williams (L. F.) and Wilson (F. R.) and Wilson (Hugh A.), equal.

DESCRIPTIVE GEOMETRY (MAP PROJECTIONS).

Third Year.—Class I.—Wilkins, West, Bradley, Sproule, Gibbs (C. R.). *Class II.*—Fairweather and McCully, equal; Bone; McNeill and Neilson, equal; Lindsay, Grant; Crutchfield and Rittenhouse, equal; MacLachlan. *Class III.*—Nehin and Richardson, equal; Brown; Laffoley and Lutz and Marchbank, equal; Kirkpatrick and Voligny, equal; Ryan, Williscroft; Armstrong and Kelly, equal; Rounthwaite; Alberga and Binks and Nesham and Wickenden, equal.

DESCRIPTIVE GEOMETRY (PERSPECTIVE DRAWING).

Third Year.—Class I.—Bradley, West, Gibbs (C. R.), Wilkins, Des Brisay, Fairweather; Bone and Rittenhouse, equal; Wickenden; Brown and Laffoley and Richardson, equal; *Class II.*—Nesham, Neilson, McNeill; Armstrong and Crutchfield and Sproule, equal; Locock, Seath; Creaghan and Kirkpatrick, equal; Binks and Parke and Voligny, equal. *Class III.*—Lindsay and Lutz, equal; McCully and MacIntosh, equal; Kelly; Alberga and Grant and MacLachlan and O'Donnell and Ryan, equal; Nehin and Rounthwaite, equal; Marchbank, Carnsew, Scott (H. A.); Hunt and Mooney, equal.

DESIGNING.

Fourth Year.—Class I.—Goddard, Loggie, Smith (B. O.). *Class II.*—McNicoll. *Class III.*—Summerskill, Cann, Coleman.

ELECTRIC LIGHT AND POWER DISTRIBUTION.

Fourth Year.—Class I.—Laing; Floyd and Shand, equal; Fowler, Sparling. *Class II.*—Scantlebury, Macaulay (D. L.), Chalifoux, Gomes. *Class III.*—LaMontagne (J. M.), Green.

ELECTRIC RAILWAYS.

Fourth Year.—Class I.—Frame, Yuill, Ross, Bremner, Freeland. *Class II.*—Brisbane and Gage and Hovey, equal; Todd, Parkins; Ribadeneyra and Wilson (C. P.), equal; Thom and Wilson (A. L.), equal. *Class III.*—Lionais; Laddon and Perry (B. R.), equal; Taylor (G. M.); Alberga and Bonhomme and Lauder, equal; Bull and Garden and Page, equal; Bignell, Fritz; Little and Monat and Patterson, equal; Innes; Grant and Lyons and O'Shea and Taylor (W. H.), equal.

ELECTRIC TRACTION.

Fourth Year.—Class I.—Floyd and Fowler, equal; Laing (N. B.), Scantlebury, Williams, Black. *Class II.*—Shand, Guy, Macaulay (D. L.), Sparling, Green, LaMontagne (J. M.). *Class III.*—Angus, Chalifoux, Gomes.

ELECTRICAL DESIGN.

Fourth Year.—Class I.—Sparling, Fowler, Laing, Green. *Class II.*—LaMontagne (J. M.) and Shand, equal; Floyd and Macaulay (D. L.), equal. *Class III.*—Angus, Gomes; Chalifoux and Scantlebury, equal.

ELECTRICAL ENGINEERING.

Fourth Year.—Class I.—Sparling, Shand; Fowler and Laing, equal. *Class II.*—None. *Class III.*—Green, Macaulay (D. L.), Lamontagne, Floyd, Gomes; Angus and Scantlebury, equal.

Third Year.—Class I.—Reid and Swenson, equal; Silver. *Class II.*—Rosebrugh, Hight, Fotheringham, Miner. *Class III.*—Macpherson, Rogers.

ELECTRO-METALLURGY.

Fourth Year.—Class I.—Sparling, Shand. *Class II.*—Fowler, Floyd, Laing (N. B.); Angus and Scantlebury, equal; Green and LaMontagne (J. M.), equal. *Class III.*—Macaulay (D. L.), Chalifoux, Gomes.

ELEMENTS OF ELECTRICAL ENGINEERING.

Fourth and Third Years.--Class I.--Wilkens, Frame, Innes; Gage and Lionais, equal; Todd; Laddon and Ross, equal; Bishop. *Class II.*—Freeland Fritz; Brisbane and Cooper, equal; Klein and Wilson (A. L.) and Yuill, equal; Bull, Nelson; Bignell and Bremner, equal; McNicoll and Muir and O'Shea, equal; Johnson (B. P.) and Parkins (F. A.) and Perry (B. R.), equal; Tracy; Cole and Hovey (J. A.) and Lauder, equal; Hovey (R. W.) and Page, equal; Grant (W. R.). *Class III.*—Dowell and Taylor (G. M.) and Wilson (C. P.), equal; Alberga (G. F.), Learned, Thom, Little, Patterson (A. E.); Monat and Taylor (W. H.), equal; Bonhomme and Dempster, equal; Ruggles.

ELEMENTS OF POLITICAL ECONOMY.

Third Year.—Class I.—Leslie. *Class II.*—None. *Class III.*—Smith (W. H.), Sears, Sutherland; Harris and LeGault, equal.

ENGINEERING ECONOMICS.

Third Year.—Class I.—Bradley, Wilkins; Grant and West, equal; Fairweather and Hovey and McNeill, equal; Gibbs (C. R.) and Neilson, equal; Dowell and McCully, equal; Hodgson, Crutchfield. *Class II.*—Marchbank; Armstrong and DeCew and Miner, equal; Klein; Bone and Rittenhouse and Wickenden, equal; Ferguson (G. H.) and Wilson, equal; Binks and Bishop, equal; Ryan, Muir, Alberga; Kirkpatrick and Lutz and Nesham and Sproule, equal; Brown and Lindsay, equal; Andrews and Weir, equal. *Class III.*—Richardson, McNicoll, Hargrave, Nehin, Seale, Petford; Kilpin and Laffoley and Rounthwaite, equal; Williscroft, Johns; Voligny and Wilkens, equal.

ENGINEERING LAW.

Fourth and Third Years.—Class I.—Bremner, Scott (R. A.); Frame and Fyon, equal; Grant and Gomes, equal; Green, Robertson (J. L.), Ross, Chalifoux, Gage; Darbyson and Perry (B. R.) and Lamontagne (J. M.), equal; Angus and Henson, equal. *Class II.*—Moulton and Parsons (L. H.) and Scantlebury and Sears, equal; Forbes (N. B.), Hutchinson, Morris (F. J.); Cole and Lauder and Paisley, equal; LeGault, Pitts, Perrault, Bishop, Macaulay (D. L.). *Class III.*—Wilson (A. L.); Brisbane and Sutherland and Taylor (W. H.), equal; Lionais, Chisholm; Harris and Wilkens, equal; Klein and Leslie, equal; Fenster, Heney; Despatie and Dowell, equal.

ENGLISH.

Fourth Year (Railways Course).—Class I.—None. *Class II.*—None. *Class III.*—Todd, Parkins.

Third Year (Railways Course).—Class I.—LeGault. *Class II.*—Smith (W. H.), Schellens, Leslie. *Class III.*—Sears, Harris; Bennet and Sutherland, equal; Marcoux.

First Year.—Class I.—Timmerman, Dörken; Fraser and Jelly, equal; Winfield. *Class II.*—Tucker; Doran and Rutherford, equal; Copping and Kay, equal; Austin and Dionne, equal; Kalem and Reiffenstein and Wait, equal; Harris; Black and Weibel, equal; Shapter and Wallace, equal; McLean (A. C.); Camp and Conroy and Gillie and Gould and Kelly and Purcell and Thompson and Travis, equal. *Class III.*—Schiedel and Way, equal; Foster and Hardtman and Jordon and Stewart and Wilson (F. R.), equal; Hogarth and Lake and McDonald and Morrisette and Williams (J. A.), equal; Emmons; Dick and Drewry and Goodman, equal; Carter and Louttit and Morphy and Winter, equal; Lee and Vessot, equal; Fox and Nutter and Waring and White and Whitley, equal; Bullard (L. F.) and Ford and Pim, equal; Hale and Low and Scott (G. D.) and Wickenden, equal; Ouimet; Hulburd and Mewburn and Rankine and Wilson (Harold A.) and Work, equal; Bickell and Bissett and Bush and Cameron and Doucet and Dubuc and Paddon and Rose and Scott (W. O. C.) and Smith (D. T.), equal.

EXPERIMENTAL ENGINEERING.

Fourth Year.—Class I.—Goddard. *Class II.*—Loggie. *Class III.*—McNicoll, Summerskill.

FIRE ASSAYING.

Third Year.—Class I.—None. *Class II.*—Johns, Hargrave. *Class III.*—White and Weir, equal; Smith (W. C.), Emery.

FOUNDATIONS AND MASONRY.

Third Year.—Class I.—Bradley and Gibbs (C. R.), equal; Fairweather and Wilkens, equal; Armstrong and Richardson and West, equal; Marchbank, Sproule; Binks and Kirkpatrick, equal; McNeill, Bone, McIntosh; Creaghan and Laffoley, equal. *Class II.*—Hutchinson and Voligny, equal; Crutchfield and Rounthwaite and Ryan, equal; Alberga and McCully and Wickenden, equal; Brown and DesBrisay and Lindsay, equal; Grant; Bangs and Locock and Nehin, equal; Carnsew and Neilson, equal; Lutz and McLachlan, equal; Hodgson, Seath. *Class III.*—Kelly and McLean and McPhail, equal; Rittenhouse, Greene; McCaghey and Milne, equal; Woollatt, Scott (H. A.).

FREEHAND DRAWING AND LETTERING.

First Year.—Class I.—Copping and Hale, equal; Mitchell and Tucker, equal; Black (E. P.), Weibel; Cann and Wallace equal; Paddon and Schiedel and Way, equal; Dick and Lester, equal; Morphy; Brooks and Camp and Conroy and Gould and Jelly and Marson and Rutherford and Timmerman and Wickenden, equal; Larin and Wait, equal. *Class II.*—Hastings and Johnston, equal; Morrisette

and Travis, equal; Ford and Reiffenstein, equal; Lee and Parke and Wilson (Hugh A.), equal; Harris; Purcell and Rankine, equal; Fox; Bryant and Dörken, equal; Bourret and Kelly, equal; Lake; Foster and Fraser and Kalem, equal; Blachford and Hulburd and Smith (D. T.), equal. *Class III.*—Mewburn and Mullan, equal; Kay; Bennett and Jordan and Scott (G. D.), equal; Levin and McLellan and Shapter, equal; Louttit and White, equal; Bowie; Hogarth and Vessot, equal; Dionne; Gooch and Winfield, equal; Winter, Creaghan and Nutter and Parker and Reeve and Williams, (L. F.), equal.

FREIGHT SERVICE.

Fourth Year.—Class I.—Smith (W. H.). *Class II.*—None. *Class III.* None.

Third Year.—Class I.—Harris and Leslie, equal; LeGault and Sears and Sutherland, equal. *Class II.*—Ruggles and Schellens, equal. *Class III.*—Marcoux.

GEODESY.

Fourth Year.—Class I.—Gage and Yuill, equal; Staples, Freeland. *Class II.*—Taylor (G. M.); Baker and Bremner and Illsley and Innes, equal; Lionais; Page and Ribadeneyra, equal; Brisbane, Frame; Bull and Lamontagne (Y.), equal; Scott (N. M.); Laddon and Ross, equal; *Class III.*—Lindsay and Thom, equal; Pennock; Alberga and Perry (B. R.), equal; Lauder and Wilson (A. L.), equal; Fritz and Little and O' Shea, equal; Lyons, Taylor (W. H.); Grant and Hovey (J. A.), equal; Bell and Bignell and Johnson (H.) and Patterson and Perry (R. S.), equal.

GEODETIC FIELDWORK.

Fourth Year.—Class I.—None. *Class II.*—Frame, Little, Staples, Grant, Baker and Gage, equal; Wilson (A. L.); Johnson (H.) and Perry (B. R.) and Yuill, equal; Lamontagne (Y.); Illsley and Lindsay, equal; Pennock and Perry (R. S.), equal; Bonhomme and Page and Thom and Woollatt, equal. *Class III.*—O'Shea and Ross, equal; Fritz and Taylor (G. M.), equal; Bremner and Hodgson, equal; Alberga and Bull, equal; Brisbane and Patterson and Ribadeneyra, equal; Freeland and Innes, equal; Laddon and Taylor (W. H.), equal; Lyons, Lionais; Bell and Garden, equal; Hovey (J. A.), Bignell.

GEOLOGY (GENERAL).

Third Year.—Class I.—McNeill, Robitaille; Bradley and Sproule, equal; Voligny. *Class II.*—Rittenhouse; Armstrong and Richardson, equal; Gibbs (C. R.), Crutchfield, McCully; Nehin and Weir, equal; Bone; Binks and Brown, equal; Marchbank and Wickenden, equal; Hodgson and Laffoley and Neilson, equal; Rounthwaite. *Class III.*—Hunt, Grant; Lindsay and Milne and Wallingford, equal; Kirkpatrick, Johns, Nesham, Alberga, Mooney, MacLachlan, Wilkins, Williscroft.

GEOLOGY OF CANADA.

Fourth Year.—Class I.—Dempster and Tracy, equal. *Class II.*—Macaulay (C. A.), Robitaille. *Class III.*—Johnson (B. P.), Gilchrist, Learned, Nelson; Buckley and Cameron, equal.

GRAPHICAL STATICS.

Second Year.—Class I.—Eadie and Warriner, equal; Boast and Walter, equal; Chisholm and Drury and Robertson, equal; Gardner and Greaves and McCulloch, equal; Aggiman and Crombie, equal; Macpherson and Payne, equal; Liddy, Woods, Clark, Derrer; Giles and Livingstone and MacMillan, equal; Cater and Watts, equal; Dunbar and Little and Ross-Ross and Stone, equal;; Forbes and Scriver, equal; Kert; Poë and Tucker and Weldon and Wright, equal; Jacques and Pitt, equal. *Class II.*—Hodgson and McEvers and Sutherland (D. M.), equal; Cushing, Labelle; Mackenzie and Perrault, equal; Trudeau, Gerrie; Buckland and Gagnier and McLeod (J. E.) and Scott (G.), equal; Blackshaw and Galloway and Lambert, equal; Baillie and Balm and Ingersoll and Pope, equal; Ward, Murphy; LaPrairie and Wade, equal; Pearcy and Smith (H. E.), equal. *Class III.*—Scott (W. B.); Davis and Patterson and Rochester (L. B.), equal; Macklin and Smith (E. H.), equal; Rochester (G. H.); Brophy (A. W.) and Ferguson and Shanly and Strong, equal; Marquette and Oliver, equal; Cockfield, Charlton, Lemay and Lowe, equal; Johnston and Moas and Sutherland (V. R.), equal; Hyndman and Letson, equal; Boyd and Clerk and Fergie and Hutchison, equal.

HYDRAULICS.

Fourth Year.—Class I.—Sparling; Frame and Staples, equal; Black; Laing and Loggie, equal; Williams, Shand, Goddard. *Class II.*—Alberga, Gage, Fowler, McNicoll, Lyons; Freeland and Innes, equal; McCall and Montgomery, equal; Bremner; Fritz and Yuill, equal; Murray. *Class III.*—Hovey and Ross and Thom and Wilson (C. P.), equal; Page; LaMontagne (J. M.) and Lindsay, equal; Bonhomme and Lionais and Taylor (G. M.), equal; Lamontagne (Y.); Floyd and Wilson (A. L.), equal; Lauder; Baker and Brisbane and Cann and Fair, equal; Bull; Angus and Chalifoux and Coleman and Garden and Grant and Green and Guy and Illsley and Johnson (H.) and Little and Macaulay (D. L.) and MacEwen and O'Shea and Patterson and Pennock and Perry (B. R.) and Perry (R. S.) and Scantlebury and Taylor (W. H.), equal. *Unranked.*—Smith (B. O.).

HYDRAULICS AND LABORATORY (SHORT COURSE).

Fourth Year.—Class I.—Johnson (B. P.). *Class II.*—Macaulay (C. A.), Dempster. *Class III.*—Gilchrist and Learned, equal; Cole and Nelson, equal; Cameron.

HYDRAULIC MACHINES.

Fourth Year.—Class I.—Frame, Ross, Gage. *Class II.*—Bremner; O'Shea and Perry (B. R.), equal; Freeland and Wilson (A. L.), equal; Lauder. *Class III.*—Monat, Wilson (C. P.); Lyons and Patterson and Taylor (W. H.) equal; Grant; Coleman and Taylor (G. M.), equal; Lionais; Bonhomme and Brisbane and Cann and Garden and Page, equal.

INTERLOCKING DESIGN.

Fourth Year.—Class I.—Todd. *Class II.*—Parkins. *Class III.*—None.

LABORATORIES.

CHEMICAL LABORATORY (GENERAL).

Second Year.—Class I.—Boast and Eadie and Greaves, equal; Clark and Walter, equal; Gardner and McCulloch, equal; Macklin, Poë, Crombie; Robertson and Warriner, equal; Scott (W. B.), Giles; Liddy and Mackenzie and Pitt, equal. *Class II.*—Chisholm, Macpherson, Derrer, Strong, Dunbar; Cater and Smith (E. H.), equal; Gagnier and Pope, equal; Blackshaw and Charlton and Cockfield, equal; Gerrie and Kert and Wade and Woods, equal; Baillie and Balm and Davis and Hodgson and Sutherland (D. M.) and Sutherland (V. R.), equal; Ferguson (J. A.) and Murphy, equal; Jacques and Shanly, equal; Patterson, Oliver. *Class III.*—La Prairie and Perrault and Wilson (E. P.), equal; Carroll and Scott (G.) and Scriver and Smith (H. E.), equal; Cushing and Hyndman, equal; Lowe; Moas and Rainboth and Smith (J. W.), equal; Rosen; Booth (F. H.) and Boyd and Ross-Ross, equal; Rochester (G. H.), Buckland, Forbes, Ward.

CHEMICAL LABORATORY (INORGANIC QUALITATIVE ANALYSIS).

Third Year.—Class I.—None. *Class II.*—Johns; Wallingford and Weir, equal. *Class III.*—None.

CHEMICAL LABORATORY (INORGANIC QUANTITATIVE ANALYSIS).

Third Year.—Class I.—Hovey. *Class II.*—Andrews; DeCew and Harshaw and Penney, equal; Taylor. *Class III.*—Douglas and Hobart and Kilpin and Malcolm and Seale, equal; Cameron.

CHEMICAL LABORATORY (ORGANIC).

Third Year.—Class I.—Hovey, DeCew. *Class II.*—Seale, Andrews, Taylor, Kilpin. *Class III.*—Harshaw.

ELECTRICAL ENGINEERING LABORATORY.

Fourth and Third Years.—Class I.—Mucklow, Bishop, Bremner, Grant, Parkins (F. A.), Gervers, Yuill; Gage and Innes and Lauder, equal; Learned and Monat and Ross, equal; Nelson and Petford, equal; Taylor (W. H.); Brisbane and Klein, equal; Cole; Fritz and Garden, equal. *Class II.*—Freeland and Taylor (G. M.), equal; Johnson (B. P.); Dörken and Lamontagne (Y.) and Staples, equal; Frame and Hovey (J. A.), equal; Wilkins; Bull and Muir, equal; Bonhomme and Little and Perry (B. R.), equal; Laddon and Lionais and Wilson (A. L.), equal; Chisholm. *Class III.*—Cooper and Dempster and Hebden, equal; Tracy, Lyons; Page and Patterson (A. E.), equal; O'Shea; Bell and McNicoll, equal; Bignell and Hovey (R. W.) and Perry (R. S.), equal; Dowell and O'Donnell, equal; Thom, Alberga (G. F.).

Fourth Year.—(Electrical Engineering Course).—Class I.—Fowler and Sparling, equal; Shand; Floyd and Green, equal. *Class II.*—Angus and Laing and LaMontagne (J. M.), equal; Scantlebury, Gomes. *Class III.*—Chalifoux, Macaulay (D. L.).

Third Year.—(Electrical Engineering Course).—Class I.—Reid, Rogers, Miner; Hight and Rosebrugh, equal; Swenson, Silver; *Class II.*—Murdock, Roberton, Macpherson, Fotheringham. *Class III.*—None.

GEODETIC LABORATORY.

Fourth Year.—Class I.—Frame and Gage, equal. *Class II.*—Freeland, Taylor (G. M.); Ross (G. W.) and Yuill, equal; Ilsley; Bremner and Innes, equal; Bonhomme and Hodgson, equal; Alberga and Bignell and Fritz and Little and Wilson (A. L.), equal; Garden and Page and Ribadeneyra and Staples, equal; Bull and Lindsay, equal; Grant and Laddon and Lyons, equal; Brisbane and Lionais, equal; Hovey and Perry (R. S.), equal; Woollatt. *Class III.*—Johnson (H.); Baker and O'Shea, equal; Lamontagne and Patterson and Perry (B. R.), equal; Pennock; Bell and Thom, equal; O'Donnell and Taylor (W. H.), equal.

HYDRAULICS LABORATORY.

Fourth Year.—Class I.—Shand, Goddard, Sparling, Taylor (G. M.), Bremner, McCall; Laing and Williams, equal; Black and Staples, equal; Brisbane and Page, equal; Loggie and Yuill, equal; Innes; Garden and LaMontagne (Y.), equal; Frame; Gage and Johnson (H.) and Little and Lyons, equal; Freeland and Grant and Lionais and McNicoll, equal; Alberga, Lauder; Bignell and Cann and LaMontagne (J. M.) and Scartlebury and Wilson (C. P.), equal; Bull and Lindsay and Wilson (A. L.), equal; Fair and Floyd and Fowler and Fritz and Ilsley and Macaulay (D. L.) and Ross, equal; Hovey; Perry (B. R.). *Class III.*—Coleman and Smith (B. O.), equal; Perry (R. S.); Bonhomme and MacEwen, equal; Green and Pennock, equal; O'Shea, Thom; Montgomery and Murray, equal; Taylor (W. H.); Bell and Guy and Patterson, equal; Baker, O'Donnell, Chalifoux.

MECHANICAL ENGINEERING LABORATORY.

Fourth Year.—Class I.—Goddard, Loggie. *Class II.*—Summerskill, Smith (B. O.), McNicoll. *Class III.*—Cann, Coleman.

Third Year.—(General Course.)—Class I.—Bishop and Gibbs and West and Wilkins, equal; Hovey; Kirkpatrick and McNeill, equal; Kilpin and Voligny, equal; Armstrong, Fairweather; Bradley and Rittenhouse and Sears, equal; Chisholm, Hutchinson; Petford and Richardson, equal; Bone and Kelly and LeGault and McNicoll, equal; Klein and Laffoley and Marchbank, equal; Neilson and Ryan and Sproule, equal; McCully and McLachlan and Taylor and Wilkens, equal; Dörken and Harris, equal; DeCew and Dowell and Weir, equal. *Class II.*—Andrews and Lutz, equal; Crutchfield and Hebden, equal; Wallingford; Johns and Lindsay, equal; Alberga and Leslie, equal; Nesham and Parke, equal; Hodgson, Binks; Nehin and Schellens, equal; Grant and Seale, equal; Laddon and Wickenden, equal; Marcoux, Hargrave, Sutherland.

Third Year.—(Electrical Engineering Course.)—Class I.—Reid, Swenson, Miner, Rogers; Hight and Silver, equal; Green and Rosebrugh, equal. *Class II.*—Murdock and Roberton, equal; Fotheringham, Macpherson. *Class III.*—None.

ORE DRESSING LABORATORY.

Fourth Year.—Class I.—Cameron. *Class II.*—Macaulay (C. A.), Learned, Nelson, Gilchrist, Johnson (B. P.). *Class III.*—Dempster, Buckley, Tracy, Gervers, Galloway.

PHYSICAL LABORATORY.

Third Year.—(*Electrical Engineering Course.*)—*Class I.*—Reid, Swenson; Rogers and Rosebrugh, equal; Murdock. *Class II.*—Miner and Roberton, equal; Fotheringham and Hight, equal; Hacker, Macpherson. *Class III.*—None.

Second Year.—*Class I.*—Greaves, Eadie, Gardner; Boast and Charlton and Davis, equal; Aggiman and Liddy, equal. *Class II.*—Chisholm and Cushing and Robertson, equal; Giles and Macpherson and Wade, equal; Clark and Hodgson and Johnston and Scott (W. B.) and Sutherland (D. M.), equal; Dunbar and Strong and Warriner, equal; Pitt and Turnbull and Ward and Weldon, equal; Fuger; Jacques and Oliver and Ross-Ross, equal; Kert and Poë and Pope, equal; Blackshaw and Derrer and Gerrie and Walter, equal; Macklin and Smith (J. W. H.), equal; Baillie and Sutherland (V. R.), equal; Cater, Parsons (E. A.). *Class III.*—Cockfield and Smith (E. H.), equal; Buckland and Clerk and Harkness and Murphy, equal; Booth and Forbes and Lemay and Mackenzie and Woods, equal; Johnson and LaPrairie and Wilson (E. P.), equal; Parsons (F. S.) and Smith (H. E.), equal; Gagnier and Hoichberg and McCulloch and Rainboth and Rosen, equal; Brophy (A. W.); Bennet and Fergie and McLeod (J. E.) and Rochester (G. H.), equal; Crombie and Ferguson (J. A.) and Kelsch and Lemoine and Lowe, equal; Hyndman and Kelly and Rochester (L. B.), equal; Scott (G.), Boyd, Scriver; Brophy (M. J.) and Lanctot and Marquette and McLean (H.) and Reid and Shanly, equal.

First Year.—*Class I.*—Tucker, Wallace, Johnson. *Class II.*—Gooch and Hale, equal; Cann and Hulburd and Winfield, equal; Hogarth and Morphy and Paddon, equal; Dick and Louttit and Weibel, equal; Black and Camp and Marson, equal; Bourret and Doran and McLean (A. C.), and Shapter, equal; Ford and Kay, equal; Copping and Jordan and Kelly, equal; Conroy and Travis and Vessot and White, equal; Harris and Lee and Wilson, equal; Dionne and Mitchell and Purcell, equal; Lake and Parke and Rankine, equal; Gould and Wickenden and Williams, equal; Blachford and Jelly and Kalem, equal; Mewburn and Monette and Weinstein, equal. *Class III.*—Dörken; Coughlan and Rutherford, equal; Fraser and Hastings, equal; Morrisette and Scott (G. D.) and Wait, equal; Foster; Livingstone and Way, equal; Mullan; Hardtman and Reiffenstein, equal; Timmerman; Fox and Wheeler, equal; Schiedel, Smith (D. T.); Bryant and Farley and Nutter, equal; Winter; Larin and Low, equal.

STRENGTH OF MATERIALS LABORATORY.

Third Year.—*Class I.*—Bradley, Wilkins; Bishop and Bone, equal; Fairweather, Reid; Crutchfield and Swenson, equal; Gibbs (C. R.) and McNeill, equal. *Class II.*—Neilson and Sears, equal; Kirkpatrick, West, Marchbank, Sproule, Laffoley; Armstrong and Klein, equal; Richardson and Roberton, equal; Brown and Hight and Miner, equal; Chisholm and Hodgson and Johns and Rosebrugh and Wilkens, equal; Rittenhouse and Ryan, equal; Rogers and Rounthwaite, equal; Grant and McNicoll and Petford and Taylor, equal; Andrews and Silver, equal. *Class III.*—Binks, Hebden, Smith (W. H.); Harris and Leslie, equal; Hovey and MacLachlan and Nehin, equal; Hutchinson and McCully, equal; Lindsay, LeGault; Alberga and Lutz, equal; Wallingford; Wickenden and Williscroft, equal; Dowell and Fotheringham, equal; DeCew and Dörken and Kelly and Macpherson and Marcoux and Milne and Muir and Sutherland and Woollatt, equal.

LOCOMOTIVE ENGINEERING.

Fourth Year.—*Class I.*—Goddard. *Class II.*—Summerskill, McNicoll; Cann and Coleman, equal. *Class III.*—None.

MACHINE DESIGN.

Fourth Year.—(*Electrical Engineering Course.*)—*Class I.*—Sparling, Fowler; Shand and Williams, equal; Laing, Floyd, Black. *Class II.*—Scantlebury, Guy; Gomes and LaMontagne, equal. *Class III.*—Macaulay, Angus, Chalifoux.

Fourth Year.—(*Mechanical Engineering Course.*)—*Class I.*—Goddard. *Class II.*—Loggie, Smith (B. O.). *Class III.*—Coleman and Summerskill, equal; Cann and McNicoll, equal.

Third Year.—*Class I.*—Bishop, Swenson, Reid; Rogers and Silver, equal. *Class II.*—LeGault, Hight; Harris and Miner, equal; Macpherson, Sears. *Class III.*—Petford, Leslie; Dowell and Rosebrugh, equal; Klein, Schellens; Dörken and Sutherland and Wilkens, equal; Chisholm.

MANUFACTURING PLANT DESIGN.

Fourth Year.—*Class I.*—Goddard, Loggie. *Class II.*—McNicoll, Summerskill. *Class III.*—None.

MAPPING.

Third Year.—*Class I.*—Bradley, Gibbs (C. R.), Laffoley, Voligny; Grant and LeGault, equal; McNeill and Richardson and Sears, equal. *Class II.*—Binks and Marchbank and Wilkins, equal; Ryan and Sproule and West, equal; Lutz and Rounthwaite, equal; Armstrong and Bone and Harris and Kirkpatrick, equal; Kelly and Parke, equal; Bangs and Ferguson, equal; Lindsay and Brown, equal; Leslie and MacLachlan, equal; Hutchinson, Nehin; Fairweather and Sutherland and Nesham, equal. *Class III.*—Neilson, Schellens; McCully and Milne, equal; Alberga and Ruggles, equal; Hunt and Williscroft, equal; Crutchfield, Scott (H. A.), O'Donnell.

Second Year.—*Class I.*—Boast, Gardner; Crombie and Walter, equal; Cushing, Robertson, Greaves; Gerrie and McCulloch and Ward, equal; Cater; Chisholm and Marrotte and Parsons (E. A.) and Warriner, equal; Fergie and Gagnier and Liddy and Macpherson, equal; Eadie. *Class II.*—Little and Pope, equal; Blackshaw and Booth (F. H.) and Jeffrey and McEvers and Poë and Wilson (E. P.) and Woods, equal; Kert; Aggiman and Derrer and McLean (H.), equal; Booth (P.) and Harkness and Mackenzie and Rainboth and Smith (E. H.) and Sutherland (D. M.), equal; Charlton and Giles and Kelly and LaPrairie and Macklin and Scriver and Turnbull, equal; Cockfield and Hargrave and Perrault, equal; Baillie and Balm and Deschamps and Rochester (L. B.) and Wade, equal; Labelle and Lemay, equal; Dunbar and Jacques and Koelle and Rochester (G. H.) and Scott (G.), equal; Hodgson and Kelsch and Pitt, equal; Bennet and Carroll and Ferguson (J. A.) and Scott (W. B.) and Sutherland (V. R.) and Thompson (G. D.), equal; Hutchison, Johnston; Chipman and Davis, equal. *Class III.*—Ross-Ross; Hyndman and Parsons (F. S.), equal; Fuger and Macfarlane, equal; Lowe and Wilson (A. L.), equal; Boyd and Lemoine and McLeod (J. E.), equal; Smith (H. E.) and Strong, equal; Hoichberg and Shanly, equal; Murphy; Buckland and Forbes, equal; Clerk and Cliver, equal.

MARINE ENGINEERING.

Fourth Year.—Class I.—None. *Class II.*—Loggie, Smith (B. O.). *Class III.*—None.

MATERIALS OF CONSTRUCTION.

Second Year.—Class I.—Boast, Greaves, Eadie, Kert; Gardner and Liddy and Poë, equal; Johnston, Warriner, Galloway; Blackshaw and Macklin and Scriver, equal; Chisholm and Mackenzie and Macpherson and Wade, equal. *Class II.*—Baillie and Walter, equal; Derrer and Stone and Weldon and Woods and Wright, equal; Hodgson, Cushing, Cockfield; Giles and McCulloch and Smith (E. H.) and Smith (J. W.) and Strong, equal; Crombie and Davis and Sutherland (D. M.), equal; Drury and Dunbar and Lambert and Letson and MacMillan, equal; McLean and Robertson, equal; Forbes and Gerrie and Pearcy and Rochester (L. B.), equal; Pope and Scott (W. B.), equal; Lowe. *Class III.*—Aggiman and Charlton and Tucker and Ward and Wilson (E. P.), equal; Ingersoll and Jacques and Payne, equal; Harkness and Rochester (G. H.), equal; Fergie and Pitt and Watts, equal; Bennet and Cater and Gagnier and Parsons (E. A.), equal; Ferguson (J. A.) and Jeffrey, equal; Buckland and McLeod and Ross-Ross, equal; Hargrave and Rainboth and Scott (G.), equal; Sutherland (V. R.), Murphy, Perrault; Hyndman and Kelly and Livingstone, equal; Boyd and Helme and Lemay and Oliver and Shanly and Smith (H. E.), equal.

MATHEMATICS.

CALCULUS.

Third Year.—Class I.—Swenson, Reid. *Class II.*—Hight, Rogers, Rosebrugh. *Class III.*—Macpherson, Fotheringham.

MECHANICS.

Third Year.—Class I.—McNicoll, Nesham, Silver; Reid and West, equal; Armstrong and Bradley, equal. *Class II.*—Bishop, Gibbs (C. R.), McCully; Cameron and Fairweather and Hight and Klein and Macpherson, equal; Swenson, Wilkins, Rosebrugh; DesBrisay and Kelly and McNeill and Mucklow and Schellens, equal; Brown and Fotheringham and Laddon and Rounthwaite, equal; Bone; LeGault and Sears, equal; Binks and Grant and MacLachlan, equal. *Class III.*—Bangs, Hutchinson; Harris and Hebden and Rittenhouse, equal; Lindsay and Shrimpton, equal; McPhail; Chisholm and Twinberrow, equal; Nehin; Voligny and Wilkins, equal; Greene; Rogers and Rutherford, equal; Creaghan; Marchbank and Richardson, equal; Crutchfield and Dërken and Leslie and Mackenzie and Murdock and Seath and Sproule and Wickenden, equal.

ANALYTIC GEOMETRY.

Second Year.—Class I.—Boast, Eadie, Liddy, Greaves; Chisholm and Clark and Gardner, equal; LaPrairie and Poë, equal; Kert, Macklin, Wright. *Class II.*—Aggiman, Giles, Robertson (R. M.) and Soper, equal; Galloway; Buckland and Hodgson, equal; Booth and Derrer and McCulloch and Payne, equal; Baillie and Smith (E. H.), equal;

Cushing and Mawdsley and Stone and Sutherland (D. M.), equal; Goodeve; Carroll and Crombie and Johnston, equal; Clement and Mackenzie, equal; Wilson (E. P.). *Class III.*—Drury; Blackshaw and Gagnier, equal; Charlton and Creery and Dunbar and Gerrie and Mitchell and Sutherland (V. R.), equal; Walter and Warriner, equal; Cockfield and Hunt and Karnes and Macpherson and Pope and Rainboth and Ward, equal; Stewart; Buchanan and Hoichberg and McCracken and Sandison and Shanly, equal; Jacques and Macdonald, equal; Farnworth and Murphy and Smith (H. E.), equal; Letson and Loy and Pitt and Reddy, equal; Livingstone; Rutherford and Strong, equal; Cater and Coombes and Hardie and Jenckes and Johnson and Kirby and Lemay and Lord and Macfarlane and MacMillan and Mahaffy and Oliver and Ross-Ross and Trudeau and Wade and Watts and Weldon and Woods, equal.

CALCULUS.

Second Year.—Class I.—Eadie, Boast, Liddy, Greaves, Poë, Chisholm; LaPrairie and Robertson, equal; Clark, Payne. *Class II.*—Cushing; Drury and Kert, equal; McCulloch and Stone, equal; Giles; Crombie and Gardner, equal; Wright; Aggiman and Sutherland (D. M.) and Wade, equal; Johnston and Macklin and Sandison, equal; Galloway and Mackenzie and Warriner, equal; Buckland and Hyndman, equal. *Class III.*—Sutherland (V. R.) and Tucker, equal; Woods; Carroll and Hodgson, equal; Gagnier and Livingstone, equal; Blackshaw; Derrer and Smith (E. H.) and Watts, equal; Dunbar and Hunt, equal; Charlton and Cockfield and Gerrie and Kelly and Lambert and Patterson and Scott (G.) and Scott (W. B.), equal; Forbes, Ross-Ross; MacMillan and Oliver and Pitt, equal; Balm and Cater and Helme and Lang and Letson and Macpherson and Moas and Murphy and Pope and Rochester (G. H.) and Smith (H. E.) and Reid, equal.

MECHANICS.

Second Year.—Class I.—Boast, Eadie; Poë and Robertson, equal. *Class II.*—Chisholm and Clark, equal; Greaves, Sutherland (D. M.); Crombie and Galloway and Liddy, equal; Gardner, Wright, McCulloch; Payne and Walter, equal; Drury and Giles, equal. *Class III.*—Sandison and Warriner, equal; Kert and Stone, equal; Derrer Wilson (E. P.); Gagnier and Wade, equal; Shanly and Sutherland (V. R.), equal; Smith (E. H.); Buckland and Cockfield and Ferguson (G. H.) and LaPrairie, equal; Aggiman and Charlton and Davis and Jacques and Mackenzie and Macklin and Rainboth and Scott (W. B.), equal; Letson; Cushing and Hodgson and Murphy and Trudeau, equal; Cater and Lang and MacMillan and Rochester (G. H.) and Weldon, equal; Balm and Blackshaw and Dunbar and Ferguson (J. A.) and Helme and Hunt and Johnson and Kelly and Macpherson and Pope and Rochester (L. B.) and Snith (H. E.) and Strong and Ward and Watts and Woods, equal.

ALGEBRA.

First Year.—Class I.—Jelly, Weibel, Gould, Wallace, Parke, Morgan, Tucker, Scott (W. O. C.), Stewart. *Class II.*—Winfield, Jordan; Ford and Fox and Mitchell, equal; Dionne, Rose, Black; Doell and Pim, equal; Morphy and Paddon, equal; Bullard (L. F.) and

McDonald, equal. *Class III.*—Carter and Foster and Harris, equal; Doran and Louttit and Purcell and Shapter, equal; Conroy and Timmerman and Weinstein, equal; Nutter and Wickenden, equal; Drewry; McKay and Vessot, equal; Reiffenstein; Cann and Gillie and Parsons (E. A.) and Smith (J. W.) and White, equal; Bissett and Hulburd and Mewburn, equal; Cameron and Fraser and Thompson, equal; Austin and Bullard (R. J.) and Camp and Dörken and Gooch and Hardtman and Hastings and Kelly and Rutherford and Schiedel and Way and Wilson (Harold A.), equal; Morrisette; Blachford and Emmons and Farley and Hogarth and Kay and Lee and Smith (D. T.) and Wheeler and Williams (J. A.) and Wilson (F. R.), equal.

GEOMETRY.

First Year.—Class I.—Jelly, Parke, Conroy, Wallace, Gould, Ford; Morgan and Weibel, equal; Wickenden; Cann and Jordan and Stewart, equal. *Class II.*—Brooks, Pick; Doell and Way equal; Dionne, Hastings, Tucker; Doran and Rose and Scott (W. O. C.), equal; Timmerman; Fox and Weinstein, equal; McKay; Bullard (L. F.) and Pim and Travis and Vessot, equal; Dörken; Hardtman and Lester and Wilson (F. R.) and Winfield, equal; Paddon and Woodward, equal. *Class III.*—Bowie and White, equal; Black and Creaghan and Levin and Morphy and Wait, equal; Copping and Parsons (E. A.) and Purcell and Shapter, equal; Emmons and Kay, equal; Bourret and Jeffrey and Kelly and McLean (A. C.) and Marson and Morrisette and Parker and Williams (L. F.), equal; Hulburd and McDonald, equal; Camp and Harris, equal; Larin and Williams (J. A.), equal; Austin and Carter, equal; Farley and Fraser, equal; Bissett and Drewry and Fowler, equal; Bush and Whitley, equal; Hale and Kalem and Lake and McLellan and Parsons (F. S.), equal; Blachford and Gillie and Harvey, equal; Benett (C. M.) and Bullard (R. J.) and Cameron and Coughlan and Foster and Louttit and Morrison and Nutter and Rankine and Shaw and Weart, equal.

MECHANICS.

First Year.—Class I.—Gould, Jelly; Mitchell and Weibel, equal; Dionne and Wallace, equal; Ford, Morgan. *Class II.*—Conroy, Tucker, Winfield; Cann and Parke, equal; Smith (J. W.) and Stewart, equal; Jordan and Shapter, equal; Dörken and McDonald, equal; Timmerman, Wickenden; Hardtman and Morphy and Vessot, equal. *Class III.*—Doell and Louttit and Morrisette, equal; Kalem; Nutter and Pim and Purcell, equal; Fox and Paddon, equal; Black and Farley, equal; Austin and Parsons (E. A.), equal; Camp and Hastings and Way and Williams (L. F.), equal; Travis, McLean (H.); McKay and Turnbull, equal; Reiffenstein and Rutherford and White and Wilson (Hugh A.), equal; Lee and Winter, equal; Bullard (L. F.) and Fraser and Lake, equal; Bissett and Doran and Gooch and Jeffrey and Kelly and Wait, equal; Blachford and Carter and Copping and Doyle and Emmons and Gillie and Hale and Harris and Hulburd and Kay and McLean (A. C.) and Rose and Scott (W. O. C.) and Smith (D. T.) and Williams (J. A.), equal.

TRIGONOMETRY.

First Year.—Class I.—Gould, Dionne; Jelly and Weibel, equal; Parke; Black and Conroy, equal; Dörken; Ford and Morgan and Vessot, equal; Cann. *Class II.*—Jordan and Mitchell, equal; Stewart and Winfield, equal; Morrisette, Fox, White, Purcell, Timmerman; Harris and Lee and Way, equal. *Class III.*—Wickenden, Camp, Doell; Copping and Louttit and McDonald, equal; Blachford and Carter and Parsons (E. A.) and Wallace, equal; Bullard (L. F.) and Hogarth and Reiffenstein, equal; Drewry and Marson, equal; Rutherford and Scott (W. O. C.), equal; Rose and Tucker, equal; Pim; Hardtman and McKay and Morphy and Scott (G. D.), equal; Austin and Emmons and Fraser and Gooch and Weinstein, equal; Bullard (R. J.) and Doucet and Dick and Farley and Lake and McLean (A. C.) and Whitley, equal.

MECHANICAL DRAWING.

Third Year.—(Electrical Engineering Course.)—Class I.—Rogers, Rosebrugh, Reid; Miner and Silver and Swenson, equal. *Class II.*—Murdock and Roberton, equal; Fotheringham and Hight, equal; Macpherson. *Class III.*—None.

Third Year.—(Mechanical Engineering Course.)—Class I.—Bishop, Petford, Chisholm. *Class II.*—Dowell; Dörken and Wilkens, equal; Klein, McNicoll. *Class III.*—Hebden.

Second Year.—Class I.—Boast and Macpherson, equal; Gerrie and Woods, equal; Eadie, Greaves, Gardner; Blackshaw and McCulloch and Warriner, equal; Jeffrey and Livingstone, equal; Chisholm, Poë, Smith (J. W.); Liddy and Smith (E. H.), equal; Booth and Derrer and Kert and Mackenzie and Walter, equal. *Class II.*—Ferguson, Lemay; Baillie and Scriver, equal; Charlton and Giles and Pope, equal; Johnston (H. W.) and Sutherland (D. M.), equal; Scott (W. B.); Carroll and Hodgson and Wilson (E. P.), equal; Crombie and Gagnier and LaPrairie and Rainboth and Rochester (G. H.) and Ward, equal; Cockfield and Dunbar, equal; Hoichberg and Jacques and Rochester (L. B.) and Ross-Ross and Sutherland (V. R.), equal; Bennet and McLeod (J. E.) and Parsons (E. A.) and Weldon, equal; Fergie and Scott (G.), equal; Harkness and McLean (H.), equal; Boyd and Cushing and Kelly and Marquette and Tucker and Wade, equal. *Class III.*—Davis, Mawdsley; Buckland and Fuger and Hyndman, equal; Forbes and Strong, equal; Macklin and Turnbull, equal; Kelsch and Parsons (F. S.), equal; Oliver and Smith (H. E.) and Murphy, equal; Clerk and Goodeve and Lowe, equal; Gordon and Lemoine and Macfarlane, equal.

First Year.—Class I.—Hale and Wallace, equal; Tucker; Copping and Dick, equal; Mitchell and Way, equal; Foster and Weibel, equal; Gould; Ford and Morphy and White, equal; Hastings; Black and Conroy and Lake, equal; Cann and Hulburd and Morrisette and Schiedel, equal. *Class II.*—Johnston and Travis and Wilson, equal; Parke and Wickenden, equal; Brooks and Dörken and Marson, equal; Jelly and Larin and Paddon, equal; Wait, Camp; Harris and Reiffenstein, equal; Purcell and Rutherford, equal; Bowie and Timmerman, equal; Kelly; Kay and Rankine and Weinstein, equal. *Class III.*—Bourret and Jordan, equal; Blachford; Bryant and Doyle and Mewburn and Mullan and Vessot, equal; Dionne and Kalem and Lee and Livingstone and Louttit and Shapter and Smith

(D. T.), equal; Benett, Winfield; Fox and Nutter and Scott (G. D.), equal; Doran and Hogarth and Low, equal; Creaghan; Farley and Fraser, equal; Lester; Gooch and Hardtman and Williams and Work and Wheeler, equal.

MECHANICAL ENGINEERING.

Third Year.—(*General Course.*)—*Class I.*—Bradley; Fairweather and Miner and Reid, equal; Wilkins, Silver, Gibbs (C. R.), Armstrong, Rogers, Hight, Kirkpatrick. *Class II.*—Bone; McNeill and Rosebrugh, equal; Macpherson and Richardson and West, equal; Taylor; Lindsay and Neilson, equal; Hovey; Crutchfield and Hargrave and Laddon and McCully, equal; Hodgson and Sproule and Wickenden, equal. *Class III.*—Kelly; DeCew and Roberton, equal; Andrews and Fotheringham and Swenson, equal; Johns; Binks and Rittenhouse, equal; MacLachlan, Marchbank; Alberga and Bangs and Lutz and Murdock and O'Donnell and Ryan, equal.

Third Year.—(*Mechanical Engineering Course.*)—*Class I.*—Muir and Wilkens, equal; Bishop. *Class II.*—Petford, Klein, Dörken Chisholm. *Class III.*—Dowell and McNicoll, equal; Hebden.

MECHANICS OF MACHINES.

Fourth Year.—*Class I.*—Goddard, Loggie, McNicoll. *Class II.*—Smith (B. O.), Summerskill, Cann. *Class III.*—Coleman.

Third Year.—*Class I.*—Reid, Bishop, Hight. *Class II.*—Silver, Rosebrugh Miner, Rogers, Wilkens. *Class III.*—Dörken and Swenson, equal; Chisholm and Fotheringham and Petford, equal; Macpherson, Klein; Dowell and Roberton and Murdock, equal.

Second Year.—*Class I.*—Boast and Gardner, equal; Eadie, Johnston; Aggiman and Greaves, equal; Chisholm and Galloway, equal; Hodgson and McCulloch, equal. *Class II.*—Hargrave and Warriner, equal; Stone, Wright; Crombie and Liddy and Poë, equal; Giles and Wade, equal; Robertson; Drury and Dunbar and Lambert and Marchbank and Sutherland (D. M.), equal; Payne, Buckland, Blackshaw, Scott (W. B.). *Class III.*—Kert and Macklin and Smith (E. H.) and Wilson (E. P.), equal; Charlton, Letson; Baillie and MacKenzie and Turnbull, equal; Cushing; Cockfield and Macpherson and Sutherland (V. R.), equal; Derrer and McMillan and Rochester (L. B.) and Rochester (G. H.) and Strong, equal; Clark and Pitt and Scott (G.) and Woods, equal; Watts, Weldon; David and Perrault, equal; Karnes and Ross-Ross, equal; Cater and Murphy and Patterson, equal; Oliver; Balm and Hunt and Kelly and Moas, equal; Helme and Shanly and Trudeau, equal.

METALLURGY.

Fourth Year.—(*General Course.*)—*Class I.*—None. *Class II.*—Learned, Nelson, Dempster. *Class III.*—Johnson (B. P.).

Third Year.—(*Chemical Engineering Course.*)—*Class I.*—Hovey; DeCew and Taylor, equal. *Class II.*—Harshaw; Kilpin and Penney, equal; Cameron and Malcolm, equal. *Class III.*—Douglas and Hobart, equal; Seale, Andrews.

Third Year.—(*Mining Engineering Course.*)—*Class I.*—None. *Class II.*—Hargrave, Weir, Johns. *Class III.*—Wallingford.

MILITARY ENGINEERING.

Fourth, Third and Second Years.—Class I.—Johnson (B. P.), Lamontagne (Y.); Gordon; Bignell and Innes, equal; Alberga (G. F.) and Learned, equal. *Class II.*—Little, Yuill, Guy, Douglas, Bull, Scott (N. M.), Gervers. *Class III.*—Thom, Cameron (C. M.), Nelson.

MILITARY FIELD ENGINEERING.

Fourth, Third and Second Years.—Class I.—Lamontagne (Y.). *Class II.*—Petford, Johnson (B. P.), Innes, Learned, Bignell, Little, Scott (N. M.); Alberga (G. F.) and Dempster and Garden and Guy and Thom, equal; Gordon, Lyons, Tracy, Lindsay (C. C.); Cameron (C. M.) and Fritz, equal; Douglas and Goddard and Laddon, equal. *Class III.*—Freeland; Muir and O'Donnell and Summerskill, equal; Bonhomme and Bull and Rochester (G. H.) and Staples, equal; Pennock and Taylor (J. R.), equal; Loggie and Patterson (A. E.) equal; Cameron, Taylor (G. M.), Gervers.

MINE MAPPING.

Third Year.—Class I.—None. *Class II.*—Smith (W. C.), Wallingford, White, Hargrave, Weir. *Class III.*—Johns, Emery.

MINERAL ANALYSIS.

Fourth Year.—Class I.—None. *Class II.*—Nelson, Johnson, Learned, Buckley. *Class III.*—Gilchrist, Cameron; Dempster and Tracy, equal; Gervers and Macaulay, equal.

MINERALOGY.

Third Year.—Class I.—Hovey. *Class II.*—Johns, Robitaille. *Class III.*—DeCew, Kilpin; Taylor and Wallingford, equal; Weir, Seale, Andrews.

MINERALOGY (DETERMINATIVE).

Third Year.—Class I.—Emery and Johns and Weir, equal; Hovey and Robitaille and Wallingford, equal; Penney and Smith (W. C.), equal; Kilpin. *Class II.*—Taylor, Douglas; Malcolm and White, equal; Parke and Seale, equal; Andrews; DeCew and Harshaw, equal; Hobart. *Class III.*—None.

MINING COLLOQUIUM.

Fourth Year.—Class I.—Macaulay (C. A.). *Class II.*—Learned, Tracy, Nelson, Johnson (B. P.). *Class III.*—Dempster.

MINING ENGINEERING.

Fourth Year.—Class I.—None. *Class II.*—Nelson, Johnson (B. P.), Tracy, Learned, Dempster. *Class III.*—None.
Third Year.—Class I.—None. *Class II.*—Weir. *Class III.*—Johns, Hargrave, Wallingford.

MINING FIELD SCHOOL.

Fourth Year.—Class I.—Cameron and Macaulay (C. A.), equal. *Class II.*—White, Nelson, Dempster, Buckley. *Class III.*—Emery, Tracy, Gervers.

MINING MACHINERY AND DESIGN.

Fourth Year.—*Class I.*—Nelson. *Class II.*—Johnson (B. P.), Learned, Dempster. *Class III.*—Tracy.

MUNICIPAL ENGINEERING.

Fourth Year.—*Class I.*—Frame, Bignell, Bremner, Taylor (W. H.), Page, Gage. *Class II.*—Freeland, Perry (B. R.), Wilson (A. L.), Grant, Hovey; Little and Thom, equal; Fritz. *Class III.*—Brisbane and Garden, equal; Bonhomme and O'Shea, equal; Bull, Wilson (C. P.), Taylor (G. M.), Lauder, Innes, Monat, Lyons; Bell and Lionais and Yuill, equal; Patterson, Ross, Alberga.

Third Year.—*Class I.*—Gibbs (C. R.). *Class II.*—Neilson and West, equal; Crutchfield, Rittenhouse, Lutz, Nesham; Bradley and Sproule, equal; Fairweather, Richardson. *Class III.*—Lindsay and Ryan, equal; Kirkpatrick and Wilkins, equal; Grant; Binks and Bone, equal; Wickenden, Armstrong; Laffoley and MacLachlan and McNeill, equal; Hodgson and Marchbank, equal; Williscroft.

ORE DEPOSITS AND ECONOMIC GEOLOGY.

Fourth Year.—*Class I.*—Nelson. *Class II.*—Dempster. *Class III.*—Johnson (B. P.), Learned, Robitaille, Tracy.

ORE DRESSING AND LABORATORY.

Third Year.—*Class I.*—Johns, Hargrave. *Class II.*—Weir. *Class III.*—Wallingford.

ORE DRESSING LABORATORY AND THESIS.

Fourth Year.—*Class I.*—Learned, Nelson. *Class II.*—Johnson (B. P.), Dempster. *Class III.*—Tracy.

ORE DRESSING AND MILLING.

Fourth Year.—*Class I.*—Macaulay (C. A.), Johnson (B. P.), Buckley. *Class II.*—Dempster, Cameron, Tracy, Gilchrist. *Class III.*—Learned, Nelson, Gervers.

ORGANIZATION AND ACCOUNTING.

Third Year.—*Class I.*—LeGault. *Class II.*—Sears, Leslie. *Class III.*—Sutherland; Harris and Ruggles, equal; Marcoux.

PASSENGER SERVICE.

Fourth Year.—*Class I.*—Parkins and Todd, equal; Fyles. *Class II.*—None. *Class III.*—None.

PETROGRAPHY AND LABORATORY.

Fourth Year.—*Class I.*—Robitaille. *Class II.*—Dempster and Nelson, equal; Johnson (B. P.), Tracy, Learned. *Class III.*—None.

PHYSICAL GEOGRAPHY AND CLIMATOLOGY.

Fourth Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Smith (W. H.), Ruggles.

PHYSICS.

Third Year.—(*Electrical Engineering Course.*)—*Class I.*—Swenson, Hight, Reid. *Class II.*—Rosebrugh, Fotheringham, Murdock, Rogers. *Class III.*—Miner, Macpherson.

Second Year.—*Class I.*—Boast, Greaves; Eadie and Johnston, equal; Macklin and Poë, equal; Gardner and Giles, equal; Galloway and Kert, equal; Liddy; Chisholm and Smith (J. W. H.), equal; Clark and Mackenzie and Sutherland (D. M.), equal. *Class II.*—Stone; Murphy and Robertson, equal; Patterson and Smith (E. H.) and Wright, equal; McCulloch, Wade, Hodgson; Derrer and Payne and Scott (W. B.), equal; Gerrie; Drury and La Prairie and Sandison, equal; Davis and Hunt, equal; Aggiman and Blackshaw and Charlton and Walter and Woods, equal; Pearcy and Ward, equal; Buckland; Pope and Wilson, equal; Dubuc and Jacques and Rochester (G. H.) and Warriner, equal; Bennet; Crombie and Rainboth and Sutherland (V. R.) and Tucker, equal; Karnes, Cater, Cushing; Pitt and Turnbull, equal; Baillie and Cockfield and Ferguson (J. A.) and Forbes and Ross-Ross, equal; Dunbar and Macpherson and Rochester (L. B.) and Strong and Weldon, equal; Carroll; Gagnier and Johnson and Kelly and Lambert and Lemay and Letson and Lowe and MacMillan and Moas and Reid, equal.

First Year.—*Class I.*—Jelly, Parke, Weibel; Gould and Morgan, equal; McDonald; Jordan and Stewart and Winfield, equal; Timmerman, Dionne; Bennet (W. H.) and Cann and Conroy and Dörken and Ford and Tucker, equal. *Class II.*—Harris and Wallace, equal; Kelly and Wickenden, equal; Morphy; Austin and Morrisette, equal; Fox and Wait, equal; Mitchell and Way, equal; Copping and Paddon and Pim and Vessot, equal; Drewry and Doell and Hale, equal; Turnbull, McKay, Hastings, Emmons; Farley and Jeffrey and Scott (W. O. C.) and White, equal; Nutter and Purcell, equal; Fraser and Hogarth and Rutherford, equal; McLean (A. C.); Bullard (L. F.) and Camp and Carter and Schiedel, equal; Louttit and Williams (J. A.), equal; Thompson; Bissett and Black (E. P.) and Hardtman and Hulburd, equal; Johnson and Kay and Shapter, equal; Gillie; Rose and Wilson (Harold A.), equal; Gooch and Kalem and Parsons, (F. S.) and Wilson (Hugh A.), equal; Bullard (R. J.) and Monette, equal; Bourret and Reiffenstein and Travis and Williams (L. F.) and Wilson (F. R.), equal.

POWER PLANT DESIGN.

Fourth Year.—*Class I.*—Goddard, Loggie. *Class II.*—McNicoll, Cann, Smith (B. O.), Coleman. *Class III.*—Summerskill.

RAILWAY ECONOMICS.

Fourth Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Parkins, Todd.

RAILWAY ENGINEERING.

Fourth Year.—*Class I.*—Frame, Illsley, Innes; Bremner and Freeland, equal; Yuill. *Class II.*—Lyons and Wilson (A. L.), equal; Lionais; Gage and Johnson (H.), equal; Fritz; Grant and Lauder and Page and Staples, equal; Alberga, Baker; Ribadeneyra and Ross, equal; Bull. *Class III.*—Thom; Bignell and Garden and Perry (B. R.) and Taylor (G. M.), equal; Little, Todd; Bonhomme and Lindsay and Parkins, equal; Lamontagne (Y.) and Perry (R. S.), equal; Hovey, Brisbane; O'Shea and Taylor (W. H.), equal; Fyles.

Third Year.—Class I.—Bradley, Gibbs (C. R.); West and Wilkins, equal; Sproule. *Class II.*—Fairweather, LeGault; Binks and Lutz and Rounthwaite and Ryan, equal; Richardson; Alberga and Neilson, equal; Kirkpatrick and McCully and McNeill and Rittenhouse, equal; Grant; Bangs and Hutchinson and MacLachlan, equal. *Class III.*—Kelly and Nehin and Wickenden, equal; Bone and Harris and Marchbank and Nesham, equal; Crutchfield, Lindsay, Hodgson; Armstrong and Sears and Voligny, equal; Smith (W. H.), Brown; Laffoley and Leslie, equal; Sutherland; Marcoux and Ruggles, equal.

RAILWAY LAW.

Fourth Year.—Class I.—Parkins. *Class II.*—Todd. *Class III.*—None.

RAILWAY MECHANICAL ENGINEERING.

Fourth Year.—Class I.—None. *Class II.*—Smith (W. H.). *Class III.*—None.

Third Year.—Class I.—Sears, Legault. *Class II.*—Leslie, Schellens, Sutherland. *Class III.*—Harris, Marcoux.

RAILWAY MECHANICAL ENGINEERING DESIGN.

Fourth Year.—Class I.—Smith (W. H.). *Class II.*—None. *Class III.*—None.

SHOP METHODS.

Second Year.—Class I.—Boast; Gardner and Macklin, equal; Eadie, Greaves, Poë, Chisholm, Davis; Derrer and Liddy and Woods, equal; Giles, Robertson; McCulloch and Macpherson, equal; Johnston (H. W.) and Sutherland (D. M.), equal. *Class II.*—Balm and Blackshaw and Dunbar and Turnbull and Warriner, equal; Smith (E. H.); Ward and Weldon, equal; Charlton and Crombie and Rochester (L. B.) and Scott (G.), equal; Cockfield and Ross-Ross, equal; Aggiman; Bennet and Harkness and Kert and Scriver and Walter, equal; Scott (W. B.); Gerrie and Jacques and Mackenzie and Sutherland (V. R.), equal; Cater and Livingstone and McLean (H.) and Smith (J. W.), equal; Rochester (G. H.); Murphy and Wade and Wilson (E. P.), equal; Hodgson and Tucker, equal; Gagnier and McLeod (J. E.), equal. *Class III.*—Cushing and Fergie and Lemay, equal; Baillie and Forbes and Oliver, equal; Karnes and Kelly and LaPrairie and Parsons (E. A.), equal; Rainboth, Hyndman, Reid, Shanly, Smith (H. E.), Ferguson (J. A.); Buckland and Clerk and Kelsch, equal; Lowe.

First Year.—Class I.—Mitchell, Copping, Ford, Weibel, Cann; Dionne and Paddon, equal; Wallace; Gould and Harris, equal; Wait, Parke; Conroy and Louttit and Winfield, equal. *Class II.*—Purcell; Hale and Marson and Reiffenstein and Timmerman, equal; Kalem and Morrisette and Weldon, equal; White; Dörken and Hastings and Travis and Way, equal; Jelly; Rutherford and Tucker, equal; Black and Weinstein, equal; Dick and Morphy, equal; Fox and Schiedel and Wickenden, equal; Jordan and Kay and Nutter, equal; Aggiman and Fraser and Vessot, equal; Foster and Hogarth and Mewburn and Shapter and Williams, equal. *Class III.*—Johnston and Scott (W. B.), equal; Lee and Wilson, equal; Hulburd and Smith (D. T.), equal; Blachford and Bourret and Farley and Kelly, equal; Doran and McLean (A. C.), equal; Camp; Larin and Rankine, equal; Bryant and Gooch, equal; Hardtman; Johnson and Scott (G. D.) and Winter, equal; Lake, Wheeler.

SHOP PROCESSES AND MANAGEMENT.

Third Year.—Class I.—Bishop, Petford, Chisholm. *Class II.*—Muir, Dörken; Klein and Wilkens, equal; McNicoll, Summerskill. *Class III.*—Hebden, Dowell.

SHOPWORK.

Fourth Year.—Class I.—Goddard. *Class II.*—Loggie, McNicoll, Cann, Coleman. *Class III.*—None.

Third Year.—Class I.—Bishop, Dörken. *Class II.*—Dowell; Petford and Wilkens, equal; Chisholm, Patterson, Moas. *Class III.*—Klein.

Second Year.—Class I.—Macpherson, Ward; Boast and Chisholm, equal; Eadie and McCulloch, equal; Fergie and Gardner, equal; Liddy and Rochester (G. H.), equal; Crombie and Ferguson (J. A.) and Gagnier and Poë and Greaves, equal; Blackshaw and Harkness, equal; Smith (E. H.); Rainboth and Sutherland (D. M.), equal; Scriver and Warriner, equal; Balm, Bennet, Cater; Kelly and Ross-Ross and Walter, equal; Weldon; Baillie and Clerk and Jacques and Smith (J. W.), equal. *Class II.*—Gerrie and LaPrairie and Mawdsley, equal; Cockfield and Hyndman and Pitt and Robertson and Strong, equal; Giles and Mackenzie and Oliver and Rochester (L. B.) and Sutherland (V. R.), equal; Kert and Scott (W. B.) and Wade, equal; Forbes and Macklin, equal; Lemay and Woods, equal; Cumming and Hodgson and Pope and Rosen and Turnbull, equal; Cushing and Dunbar and Parsons (F. S.), equal; McLean (H.) and Scott (G.) and Wilson (E. P.), equal; Buckland and Parsons (E. A.), equal; Davis and McLeod and Smith (H. E.) and Reid, equal; Aggiman and Boyd and Murphy, equal; Charlton and Livingstone, equal; Johnston. *Class III.*—Lemoine and Smithers and Stewart, equal; Shanly, Lowe, Kelsch, Hoichberg, Brophy (M. J.).

First Year.—Class I.—Cann, Tucker; Ford and Hale, equal; Travis; Gould and Larin and Morrisette and Wallace and Weibel, equal; Mitchell; Copping and Purcell and Schiedel and Wait, equal; Bowie; Conroy and Dick and Kalem and Way, equal; Jelly and Wilson, equal; Rankine; Harris and Louttit and Paddon, equal; Dionne and Doran and Johnson and Timmerman and Wickenden, equal. *Class II.*—Dörken and Foster and Parke and Rutherford and Vessot and White, equal; Jordan and Reiffenstein, equal; Farley and Hastings and Kay and Lake, equal; Black and Bryant and Marson, equal; Brooks and Hulburd and Nutter, equal; Camp and Morphy and Smith (D. T.), equal; Gooch and Weldon, equal; Fraser and McLean (A. C.) and Scott (G. D.) and Weinstein, equal; Aggiman and Hogarth and Lee, equal; Bourret and Shapter and Williams and Winter, equal; Mewburn, Mullan; Blachford and Kelly and Winfield and Work, equal; Benett (C. M.). *Class III.*—Fox, Low, McLellan; Levin and Wheeler, equal; Monette, Martin, Reeve.

SHORTHAND.

Fourth Year.—Class I.—Smith (W. H.). *Class II.*—None. *Class III.*—None.

Third Year.—Class I.—None. *Class II.*—Bennet. *Class III.*—None.

SIGNALS.

Fourth Year.—Class I.—None. *Class II.*—Todd, Parkins. *Class III.*—None.

STRENGTH OF MATERIALS.

Fourth Year.—*Class I.*—Frame, Gage, Yuill. *Class II.*—Bremner and Perry (B. R.), equal; O'Shea, Wilson (A. L.), Ross. *Class III.*—Innes; Brisbane and Fritz, equal; Ribadeneyra, Lyons, Lionais, Hovey, Wilson (C. P.); Bignell and Little, equal; Freeland; Bull and Thom, equal; Alberga and Bonhomme, equal.

Third Year.—*Class I.*—Fairweather, Bradley, Hovey, Reid, Wilkins; McNicoll and Silver, equal; Bishop, Hutchinson. *Class II.*—Swenson, West; Nesham and Wilkins, equal; Gibbs (C. R.); Neilson and Rogers, equal; LeGault, Binks; Bangs and Gibbs (W. G.) and MacLachlan and Wickenden, equal; Klein and Lindsay, equal. *Class III.*—Rittenhouse, Taylor; Muir and Schellens, equal; Bone and McCully, equal; Crutchfield and DeCew and Hodgson, equal; Armstrong and Grant, equal; Andrews and Brown and Wallingford, equal; Alberga and Hight and Kirkpatrick and McNeill and Sears and Sproule, equal; Dowell and Woollatt, equal; Rounthwaite; Dörken and Hargrave and Laffoley and Nehin and Richardson and Ryan and Williscroft, equal.

STRUCTURAL ENGINEERING.

Third Year.—*Class I.*—Bradley and Crutchfield and McNicoll and Wilkins, equal; Bishop and Fairweather, equal; West; Hovey and Kirkpatrick, equal; Marchbank; Gibbs (C. R.) and Nesham, equal; McCully and Sears, equal; Binks, LeGault; Harris and Richardson, equal; Armstrong, DeCew. *Class II.*—Lindsay and Neilson, equal; Wilkens; McNeill and Taylor, equal; Hutchinson and Klein, equal; Hodgson, Rittenhouse, Bone, Smith (W. H.); Johns and MacLachlan, equal; Leslie and Lutz, equal; Kelly and Sproule, equal; Andrews, Ruggles, Muir. *Class III.*—Gibbs (W. G.) and Grant and Hargrave and Voligny and Woollatt, equal; Milne, Williscroft, Brown; Rounthwaite and Ryan, equal; Chisholm and Nehin, equal; Bangs and Laffoley and Weir, equal; Sutherland; Schellens and Wallingford, equal; Petford and Summerskill and Wickenden, equal.

SUMMER ESSAYS.

Fourth Year.—(*Chemical Engineering Course and Chemistry Course.*)—*Class I.*—None. *Class II.*—Morris; Cole and Hovey (R. W.), equal. *Class III.*—Cooper.

Fourth Year.—(*Civil Engineering Course.*)—*Class I.*—Bremner; Gage and Taylor (W. H.), equal. *Class II.*—Perry (R. S.) and Yuill, equal; Bull; Little and Pennock and Ribadeneyra and Staples, equal; Garden and Innes and Lindsay, equal; Baker and Frame and Fritz, equal; Wilson (A. L.); Bonhomme and Brisbane and Ross, equal; Lionais; Bell and Hovey and Lamontagne and Taylor (G. M.), equal. *Class III.*—Bignell and Johnson, equal; Illsley and O'Donnell and Page and Patterson and Thom, equal; Freeland; Lyons and O'Shea, equal; Alberga.

Fourth Year.—(*Electrical Engineering Course.*)—*Class I.*—Floyd and Fowler and Green, equal; Black and Laing and Williams, equal; Shand and Sparling, equal; LaMortagne (J. M.); Guy and Scantlebury, equal. *Class II.*—None. *Class III.*—None.

Fourth Year.—(*Mechanical Engineering Course.*)—*Class I.*—Fair and Loggie, equal; McCall; Goddard and Summerskill, equal. *Class II.*—Murray and Smith (B. O.), equal; McNicoll and Montgomery, equal. *Class III.*—Coleman.

Fourth Year.—(*Mining Engineering Course.*)—*Class I.*—Macaulay, Learned. *Class II.*—Cameron and Nelson, equal; Gilbert; Gilchrist and Tracy, equal. *Class III.*—Buckley and Johnson, equal; Dempster.

Fourth Year.—(*Railway Engineering Course.*)—*Class I.*—Todd, Loudon. *Class II.*—Smith (W. H.). *Class III.*—Fyles, Parkins.

Third Year.—(*Chemical Engineering Course.*)—*Class I.*—None. *Class II.*—Hobart; DeCew and Taylor, equal. *Class III.*—Malcolm and Seale, equal; Hovey (W. C.) and Kilpin and Penney, equal.

Third Year.—(*Civil Engineering Course.*)—*Class I.*—Richardson (S. S.), Fairweather, Bradley; Bone and Hutchinson and Laffoley and McCaghey, equal. *Class II.*—Milne and Parke and West, equal; McCully and Sproule, equal; Binks and Ferguson and Grant and Locock and Wickenden, equal; Carnsew and Lindsay (C. C.), and Lutz and Seath, equal; Armstrong and Crutchfeld and Hodgson and Kelly and McIntosh and McLean and McPhail and Rittenhouse, equal; Kirkpatrick and McNeill and Ryan and Scott, equal; Greene and Nehin and Rounthwaite, equal; Perrault (R.).

Third Year.—(*Electrical Engineering Course.*)—*Class I.*—Rogers, Reid, Swenson, Creighton. *Class II.*—Fotheringham, Roberton, Sloves, Ord, Miner. *Class III.*—Macpherson and Rosebrugh, equal.

Third Year.—(*Mechanical Engineering Course.*)—*Class I.*—Wilkens. *Class II.*—Twinberrow, Shrimpton, Rutherford, Hebden. *Class III.*—Chisholm and Dörken, equal; Dowell and Klein, equal.

Third Year.—(*Mining Engineering Course.*)—*Class I.*—McLean. *Class II.*—Smith, White, Johns. *Class III.*—Wallingford, Ferguson, Emery.

Third Year.—(*Railway Engineering Course.*)—*Class I.*—Leslie. *Class II.*—LeGault and Sears, equal; Harris and Sutherland, equal. *Class III.*—Marcoux.

SUMMER READING.

Third Year.—*Class I.*—Mucklow, Alberga. *Class II.*—DesBrisay, Andrews, Voligny, Lindsay (G. A.), Marchbank, Hight. *Class III.* Neilson, Lang; Mackenzie (B. H. T.) and Silver, equal; Hunt; Hacker and Patterson and Weir, equal.

Second Year.—*Class I.*—Boast, Blackshaw, Johnston, Cockfield; Gordon and Greaves, equal; Cartwright and Pcë and Weldon, equal. *Class II.*—Macklin, Gerrie, Harkness, Goodeve; Clark and Eadie and Field and Gardner and Ross-Ross, equal; Dunbar and Hoichberg and Loy and Macfarlane and Payne and Sutherland (D. M.), equal; Buckland and Davidson and Parsons (F. S.), equal; Hardie and Hodgson and Kirby and Lemay and MacKenzie and McLeod (J. E.) and Scriver and Wade, equal. *Class III.*—Drury and Lambert, equal; Jenckes; Benret and Chisholm (Alex. H.) and Creery and Fergie and Kert and Liddy and Mawdsley and Murphy and Robertson and Stewart and Walter, equal; Cater and Crombie and Derrer and Jeffrey and Rochester (L. B.) and Scott (W. B.), equal; Ward; Kelly and Nosworthy and Pitt and Wilson (J. K.), equal; McCulloch and Mitchell and Parsons (E. A.) and Rutherford and Wilson (E. P.), equal; McCracken and Smith (H. E.) and Strong, equal; Baillie and Forbes and Macpherson and Rochester (G. H.), equal; Laing and MacMillan and Pope and Smithers and Woods, equal; Boyd and Letson and Lowe, equal; Ferguson and Hyndman and LaPrairie and Rosen and Smith (E. H.), equal; Ingersoll and Lord and Scott (G.) and Stone and Wright, equal.

SUMMER SCHOOLS.

Third Year.—(*Inorganic Qualitative Analysis and Laboratory.*)—*Class I.*—Malcolm. *Class II.*—Almond, Hobart; DeCew and Hovey, equal; Harshaw. *Class III.*—Cameron and Gibbs, equal; Andrews, Douglas; Armitage and Kilpin, equal; Seale.

Third Year.—(*Mechanical Drawing.*)—*Class I.*—Clark (A.), Rutherford, Mucklow; Bishop and Creighton and Smith (E. W.), equal; Twinberrow. *Class II.*—Mackenzie (B. H. T.), Hebden, Dörken, Reddy; Chisholm and Hight and Silver, equal; Macpherson, Miner, Shrimpton; Muir and Petford and Rosebrugh and Reid, equal. *Class III.*—McNicoll and Trapp, equal; Wilkens, Swenson, LaViolette; Heney and Roberton, equal; Fotheringham; Moas and Ord, equal; Klein.

Third Year.—(*Physics.*)—*Class I.*—Reid, Hight. *Class II.*—Mucklow, Bishop, Klein, Rogers, Miner. *Class III.*—Swenson; Hacker and Macpherson, equal; Creighton; Petford and Rutherford, equal; Reddy and Roberton and Wilkens, equal; Rosebrugh, McNicoll,

Third Year.—(*Shopwork.*)—*Class I.*—Hight. *Class II.*—Mucklow, Reid, Creighton; Bishop and Miner and Smith (D. W.), equal; Dörken and Rogers and Rutherford and Wilkens, equal; Shrimpton and Silver, equal; Muir and Petford and Roberton, equal; Chisholm and Trapp and Swenson, equal; Fotheringham. *Class III.*—Clark (A.) and Hebden, equal; Heney and Rosebrugh, equal; Hacker and Macpherson, equal; McNicoll; Klein and Reddy, equal; LaViolette, Moas.

SURVEYING.

Third Year.—(*Civil Engineering Course.*)—*Class I.*—Wilkins, McCully; Gibbs (C. R.) and West, equal; Bradley, Fairweather. *Class II.*—Bone and Neilson, equal; Armstrong, Kirkpatrick; Lindsay and McNeill, equal. *Class III.*—Hutchinson, Lutz; Marchbank and Ryan and Sproule, equal; Crutchfield, Wickenden, Nesham; Alberga and Nehin, equal.

Third Year.—(*Mining Engineering Course.*)—*Class I.*—None. *Class II.*—Hargrave, Emery. *Class III.*—Weir, Johns; Smith (W. C.) and White, equal.

Second Year.—*Class I.*—Boast and Gardner, equal; Liddy, Chisholm, Greaves, Macklin; Eadie and McCulloch, equal; Dunbar, Giles; Poë and Warriner, equal; Hodgson and Johnston and Kert, equal. *Class II.*—Robertson and Ross-Ross, equal; Stone, Mackenzie; Jacques and Smith (E. H.), equal; Drury and Lambert and Walter, equal; Derrer; Aggiman and Crombie and Galloway and Shanly and Ward and Woods, equal; Letson and Patterson and Sutherland (D. M.) and Trudeau, equal; Davis and MacMillan and Macpherson and Sutherland (V. R.) and Tucker, equal. *Class III.*—Cockfield and Weldon, equal; Buckland; McEvers and Marquette and Murphy, equal; Cushing and Payne, equal; Perrault and Rochester (G. H.), equal; Livingstone; Wade and Wright, equal; Pitt and Smith (H. E.), equal; Rainboth, Blackshaw; Strong and Turnbull, equal; Cater and Watts, equal; Charlton and Scott (G.), equal; Balm and Boyd and Gagnier and McLeod (J. E.) and Oliver and Pope and Rochester (L. B.) and Scriver and Thompson (G. D.), equal.

SURVEYING FIELDWORK.

Third Year.—Class I.—DesBrisay, McIntosh. *Class II.*—Laffoley, Bradley; Leslie and Seath, equal; Harris; Armstrong and LeGault and MacLachlan and Rounthwaite and West, equal; Bangs and Binks and Fairweather, equal; Bone and Kirkpatrick and McCully and Sears, equal; Crutchfield and McCaghey and Parke, equal; Marchbank and Neilson, equal; Grant and Hunt and McNeill and Penney, equal; Fullerton and Johns and Locock and Lutz and Richardson and Carnsew and Ferguson, equal; Smith (W. C.); Emery and Hutchinson and Ryan and Wall, equal; McLean (W. H.) and Sutherland, equal. *Class III.*—Brown and Lindsay and Nehin, equal; McLean (J. R.); Morris (W. H.) and Scott, equal; Alberga, Wallingford; Creaghan and Greene, equal; Ritchie.

Second Year.—Class I.—Dunbar and Rutherford, equal; Macfarlane; Aggiman and Chisholm (Alex. H.), equal; Walter and Warriner equal. *Class II.*—Cushing and Greaves and McCracken and Macpherson and Mahaffy and Parsons (E. A.), equal; Laing and Sutherland (D. M.), equal; Booth (F. H.) and Giles and Robertson and Wilson (J. K.), equal; Crombie and Goodeve and Koelle and Shanly and Todd and Weldon, equal; Boast and Hodgson and Rochester (G. H.) and Rochester (L. B.) and Scott (G.), equal; Cater and Eadie and Hyndman and Kirby and Smith (C. H.) and Ward and Wilson (E. P.), equal; Field and McCulloch, equal; Abbott-Smith and Cartwright and Davis and Jeffrey and Murphy (Alex. E.) and Pope and Smith (H. E.) and Stockwell, equal; Charlton and Davidson and Derrer and Gardner and Liddy and Lowe, equal; Brophy (M. J.) and Fergie and Gagnier and Kelsch and Poë and Woods, equal; Boyd and Jacques and LaPrairie and Mawdsley and O'Gorman and Scriver and Smith (E. H.) and Stewart and Wade, equal; Buckland and Forbes and Oliver, equal; Beairsto and Gerrie and Gordon and Harvey and Jenckes and Macdonald and McEvers and McLean (H.), equal; Labelle and Loy and Mackenzie and Parsons (F. S.) and Thompson (G. D.), equal; Kelly and O'Leary and Ross-Ross and Wilson (A. L.), equal. *Class III.*—Shannon; Cumming and Little, equal; Nosworthy, Strong.

TELEGRAPHY.

Fourth Year.—Class I.—Smith (W. H.). *Class II.*—None. *Class III.*—None.

Third Year.—Class I.—LeGault, Sears, Harris. *Class II.*—Leslie. *Class III.*—Sutherland, Marcoux.

THEORY OF STRUCTURES.

Fourth Year.—Class I.—Yuill; Frame and Gage and Ribadeneyra, equal; Bremner, Ross, Freeland, Perry (B. R.), Innes. *Class II.*—Garden and Lionais, equal; Brisbane, Little, Fritz; Hovey and Lauder, equal; Grant and Patterson, equal; Taylor (G. M.); Alberga and O'Shea, equal. *Class III.*—Wilson (A. L.), Lyons, Bull, Thom, Page; Bignell and Bonhomme, equal; Wilson (C. P.), Laddon; Taylor (W. H.) and Monat and Guignard, equal.

THERMODYNAMICS.

Fourth Year.—(Mechanical Engineering Course.)—Class I.—Loggie. *Class II.*—Goddard, McNicoll. *Class III.*—Summerskill, Coleman; Cann and Smith (B. O.), equal.

Fourth and Third Years.—Class I.—Sparling, Fowler, Shand, Wilkens, Laing. *Class II.*—Muir, McNicoll (C.), Bishop. *Class III.*—Gomes and LaMontagne (J. M.), equal; Angus and Klein, equal; Floyd and Green (H. P.), equal; Dowell; Dörken and Scantlebury, equal.

WIRELESS TELEGRAPHY.

Fourth Year.—Class I.—Fowler, Shand, Sparling; Floyd and Hovey (R. W.), equal; Laing (N. B.). *Class II.*—Cooper. *Class III.*—None.

WORKS ORGANIZATION AND ACCOUNTING.

Fourth Year.—Class I.—Goddard, Loggie. *Class II.*—McNicoll. *Class III.*—Summerskill, Cann, Coleman.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

Standing in Drawing, Laboratories and Shopwork.

FREEHAND DRAWING AND LETTERING.

First Year.—Class I.—Doucet. *Class II.*—Austin and Doell, equal; Emmons, Williams, Goodman; Gillie and McDonald and Pim, equal; Morgan, Drewry. *Class III.*—Bissett and Shaw, equal; Bickell and Whitley, equal; Bullard (R. J.) and Carter and Thompson, equal; Bullard (L. F.); Bush and Ettershank, equal; Rose and Wilson (F. R.), equal; Cameron, McKay; Stewart and Wilson (H. A.), equal.

LABORATORIES.

CHEMICAL LABORATORY.

Second Year.—Class I.—None. *Class II.*—Stone, Wright. *Class III.*—Drury and Payne, equal; Lambert; MacMillan and Watts, equal; Galloway, Letson; Helme and Ingersoll and Pearcy, equal.

PHYSICAL LABORATORY.

Second Year.—Class I.—Stone. Wright, Galloway. *Class II.*—Payne, Drury; Lambert and Letson, equal. *Class III.*—Pearcy, McMillan, Ingersoll.

First Year.—Class I.—Morgan, Scott, Pim, McDonald, Stewart. *Class II.*—Austin and McKay and Whitley, equal; Carter; Cameron and Doell and Rose, equal; Thompson, Wilson (F. R.), Bickell. *Class III.*—Bullard (L. F.) and Bush and Doucet, equal; Gillie and Goodman and Williams, equal; Emmons, Bissett, Drewry, Shaw, Bullard (R. J.); Ettershank and Wilson (H. A.), equal.

MAPPING.

Second Year.—Galloway, Drury, Stone. *Class II.*—MacMillan, Payne, Ingersoll, Letson, Lambert, Wright, Pearcy. *Class III.*—None.

MECHANICAL DRAWING.

Second Year.—Class I.—Drury, Scott (W. O. C.). *Class II.*—Pim, Letson, Stone, Wright. *Class III.*—MacMillan and Payne, equal; Mitchell, Galloway, Lambert, Fraser.

First Year.—Class I.—Doucet and Morgan, equal. *Class II.*—Emmons and McDonald, equal; Drewry, Stewart; Cameron and Carter and Doell and Thompson, equal; Austin, Whitley; Bush and Rose, equal; Shaw. *Class III.*—Bullard (L. F.) and Bullard (R. J.) and Goodman, equal; Bickell and McKay and Wilson (H. A.), equal; Wilson (F. R.), Williams, Ettershank, Bissett, Gillie.

SHOPWORK.

Second Year.—Class I.—Letson, Drury. *Class II.*—Galloway and Stone, equal; Payne. *Class III.*—Ingersoll and Wright, equal; Lambert, MacMillan.

First Year.—Class I.—Morgan. *Class II.*—Stewart; Emmons and McKay, equal; Doell and Drewry and McDonald, equal; Whitley; Rose and Thompson, equal; Carter and Bickell and Bullard (L. F.), equal; Wilson (H. A.); Austin and Gillie and Wilson (F. R.), equal; Bush and Cameron and Goodman, equal; Bissett; Doucet and Williams, equal. *Class III.*—Bullard (R. J.), Galloway, Shaw, Ettershank.

SURVEYING FIELDWORK.

Second Year.—Class I.—Hardie, Galloway. *Class II.*—Stone; Lord and Wright, equal; Clement and Payne, equal; Creery, Drury, Lambert. *Class III.*—Mitchell; Letson and MacMillan, equal; Ingersoll, Pearcy.

McGill University.

SESSIONAL EXAMINATIONS, 1914-1915.

Faculty of Law.

THIRD YEAR (GRADUATING CLASS).

HONOURS AND PRIZES.

Kert, I., B.A.—First Class Honours; Elizabeth Torrance Gold Medal and Prize of $50.00.
Kerry, J., B.A.—First Class Honours; George Massey Exhibition.
Howard, W. H.—First Class Honours and Prize of $50.00.
Muhlstock, A. W.—Second Class Honours.
Tyndale, O. S., M.A.—Junior Bar Prize for Civil Procedure.

PASSED FOR THE DEGREE OF B.C.L.

(In order of merit.)

Kert, I., B.A.
Kerry, John, B.A.
Howard, W. H.
Muhlstock, A. W.
Budyk, J. A.
Houle, F. A. A.
Mulcair, J.
Babcock, H. H.
Tyndale, O. S., M.A.
Stalker, A., M.A.
Wanklyn, A. A., B.A. (Excused from examinations on the ground of foreign service.)
Eliasoph, S., also qualified for the Degree.

SECOND YEAR.

HONOURS AND PRIZES.

Vineberg, S., M.A.—First Class Honours, Alexander Morris Exhibition and Prize of $50.00.
Lovett, E. A.—First Class Honours and Prize of $50.00.
Girouard, W.—First Class Honours.
Brais, P.—First Class Honours.
Budyk, H.—First Class Honours.
Vautelet, H. E.—First Class Honours.

Coughlin, E. F. J.—First Class Honours.
Phaneuf, J. E.—First Class Honours.
Fry, H. S., B.A.—First Class Honours.
Jacobs, N. W.—Second Class Honours.
Reilly, E. H.—Second Class Honours.
Beauchamp, J. N.—Second Class Honours.
Morin, G. H.—Second Class Honours.

PASSED THE SESSIONAL EXAMINATIONS OF THE SECOND YEAR.

(In order of merit.)

Vineberg, S., M.A.
Lovett, E. A.
Girouard, W.
Brais, P.
Budyk, H.
Vautelet, H. E.
Coughlin, E. F. J.
Phaneuf, J. E.
Fry, H. S., B.A.
Jacobs, N. W.
Reilly, E. H.
Beauchamp, J. N.
Morin, G. H.
Charbonneau, J. P.
Shulman, B.
Elliott, J. E. C.
Dupuis, Vincent.
Nantel, L.

The following were excused from examinations on the ground of foreign service.

Bieler, J. H., B.A.
Bruneau, A. S., B.A.
Chisholm, H. A.
Holden, R. C., B.A.
Matthewson, J. A., B.A.
Nicholson, W. C., B.A.
Scott, H. E., B.A.

FIRST YEAR.

HONOURS AND PRIZES.

Common, F. B., M.A.—First Class Honours; Scholarship of $100.00 and equal Second Prize in Roman Law.
Rose, H. E. A.—First Class Honours; Prize of $50.00 and First Prize in Roman Law.
Dewey, A. G., B.A.—First Class Honours and equal Second Prize in Roman Law.
Myerson, M. H.—Second Class Honours.
Lalonde, M. G.—Second Class Honours.
Bernfeld, M.—Second Class Honours.
Garber, M.—Second Class Honours.

PASSED THE SESSIONAL EXAMINATIONS OF THE FIRST YEAR.

(In order of merit.)

Common, F. B., M.A.
Rose, H. E. A.
Dewey, A. G., B.A.
Myerson, M. H.
Lalonde, M. G.
Bernfeld, M.
Garber, M.
Langlois, A. W.
Kennedy, P. S.
Macdonald, D. A.
Kelly, T. J.
Prevost, L. de G.
Théberge, R. M.
Hackett, F. W., B.A.

The following were excused from examinations on the ground of foreign service.

Ireland, E. H.
Macnaughton, I. R. R.
Splicer, A.

STANDING IN THE SEVERAL SUBJECTS.

FINAL YEAR.

Roman Law.

Class I. Howard.
Class II. Tyndale.
Class III. Kert, Kerry, Wanklyn, Mulcair, Muhlstock, Houle.

Constitutional Law.

Class I. Howard and Wanklyn, equal; Tyndale.
Class II. Kerry.
Class III. Kert; Muhlstock and Stalker, equal; Budyk, Babcock.

Criminal Law.

Class I. Kert, Muhlstock, Budyk, Kerry, Tyndale, Howard, Houle.
Class II. Babcock.
Class III. Stalker, Mulcair.

Law of Merchant Shipping and Carriers.

Class I. Kert, Kerry, Howard.
Class II. None.
Class III. Muhlstock, Houle, Stalker, Budyk, Babcock, Tyndale, Mulcair.

Law of Successions and Gifts.

Class I. Kert, Kerry.
Class II. None.
Class III. Howard; Houle and Mulcair, equal; Babcock, Muhlstock.

Corporation Law.

Class I. Kerry, Budyk; Kert and Muhlstock and Tyndale, equal; Howard, Mulcair.
Class II. None.
Class III. Stalker, Houle, Babcock.

Law of Sale of Immoveables.

Class I. Kert, Tyndale, Howard; Budyk and Kerry, equal; Stalker
Class II. Babcock, Muhlstock.
Class III. Houle, Mulcair.

Municipal Law.

Class I. Kert, Kerry, Budyk, Houle, Muhlstock.
Class II. Stalker.
Class III. Howard, Babcock, Mulcair.

Private International Law.

Class I. Kerry and Muhlstock, equal; Howard and Kert, equal; Budyk and Mulcair, equal.
Class II. None.
Class III. Babcock, Houle, Stalker.

Law of Civil Procedure.

Class I. Tyndale; Kerry and Kert, equal; Howard.
Class II. None.
Class III. Muhlstock, Houle, Budyk, Mulcair, Stalker, Babcock.

Law of Lease and Hire and Prescription.

Class I. Kerry, Budyk; Howard and Muhlstock, equal.
Class II. Kert, Babcock.
Class III. Mulcair; Houle and Stalker, equal.

Law of Insurance.

Class I. Kert, Kerry, Budyk, Howard.
Class II. None.
Class III. Stalker; Houle and Mulcair, equal; Babcock, Muhlstock.

SECOND YEAR.

Criminal Law.

Class I. Bruneau, Vineberg, Lovett, Girouard, Bieler; Holden and Jacobs and Brais, equal; Budyk, Morin, Coughlin, Reilly Beauchamp and Phaneuf, equal.
Class II. Fry.
Class III. Vautelet, Nantel, Shulman, Charbonneau, Elliott, Dupuis.

Law of Merchant Shipping and Carriers.

Class I. Bruneau, Vineberg; Coughlin and Lovett, equal; Vautelet, Girouard.
Class II. Holden, Phaneuf, Fry, Morin.
Class III. Jacobs, Brais, Charbonneau, Bieler, Elliott, Budyk; Shulman and Nantel and Dupuis, equal; Reilly, Beauchamp.

Public International Law.

Class I. Fry, Vautelet, Coughlin.
Class II. Vineberg.
Class III. Brais, Girouard, Beauchamp, Phaneuf, Elliott, Budyk, Charbonneau, Reilly, Lovett, Dupuis, Shulman.

Law of Successions and Gifts.

Class I. Vineberg, Lovett, Girouard, Fry, Jacobs, Budyk, Phaneuf.
Class II. Brais, Vautelet, Reilly, Coughlin.
Class III. Morin, Charbonneau; Nantel and Shulman, equal; Beauchamp

Law of Corporations.

Class I. Lovett, Girouard; Vineberg and Budyk, equal; Reilly, Holden, Bruneau, Bieler; Scott and Beauchamp, equal; Phaneuf and Brais, equal.
Class II. Morin, Jacobs, Coughlin.
Class III. Nicholson, Fry; Shulman and Vautelet, equal; Nantel, Elliott, Dupuis, Charbonneau.

Private International Law.

Class I. Vineberg, Girouard; Brais and Vautelet, equal; Reilly, Budyk, Lovett, Morin.
Class II. Beauchamp.
Class III. Jacobs and Phaneuf, equal; Coughlin, Silverman, Dupuis, Charbonneau, Fry, Elliott.

Law of Sale of Immoveables.

Class I. Lovett, Vineberg, Girouard, Reilly; Phaneuf and Budyk, equal; Fry, Brais.
Class II. Shulman and Coughlin, equal; Jacobs, Morin.
Class III. Vautelet, Dupuis; Charbonneau and Beauchamp, equal; Nantel.

Municipal Law.

Class I. Beauchamp, Lovett, Reilly, Budyk.
Class II. Jacobs and Girouard, equal; Elliott and Vautelet, equal.
Class III. Brais and Fry, equal; Coughlin and Nantel, equal; Phaneuf, Charbonneau, Vineberg, Morin, Shulman, Dupuis.

Law of Civil Procedure.

Class I. Vineberg, Girouard, Lovett, Jacobs.
Class II. Fry, Budyk.
Class III. Phaneuf and Coughlin, equal; Brais, Charbonneau, Shulman, Morin, Beauchamp, Vautelet, Reilly, Elliott.

Law of Lease and Hire and Prescription.

Class I. Lovett, Vineberg.
Class II. Brais, Girouard, Vautelet.
Class III. Beauchamp, Phaneuf, Fry, Jacobs, Charbonneau; Budyk and Coughlin, equal; Morin, Reilly; Dupuis and Shulman, equal.

Law of Insurance.

Class I. Vautelet, Vineberg, Brais, Budyk, Jacobs, Coughlin; Girouard and Lovett, equal.
Class II. Phaneuf and Reilly, equal; Charbonneau.
Class III. Beauchamp and Fry, equal; Elliott, Morin, Shulman, Dupuis, Nantel.

FIRST YEAR.

Roman Law.

Class I. Rose; Common and Dewey, equal; Macnaughton.
Class II. None.
Class III. Ireland, Myerson, Garber, Lalonde, Bernfeld, Langlois.

Constitutional Law.

Class I. Common and Rose, equal; Dewey; Garber and Lalonde, equal.
Class II. Myerson.
Class III. McDonald, Kennedy, Bernfeld, Langlois, Kelly, Hackett, Prevost, Ram, Théberge.

Legal History.

Class I. Dewey and Rose, equal; Common, Lalonde, Myerson; Ireland and Macnaughton, equal.
Class II. Bernfeld; Garber.
Class III. Langlois; Kennedy and Prevost, equal; Kelly, Hackett, McDonald, Ram, Théberge.

LAW OF REAL RIGHTS.

Class I. Common, Rosé, Lalonde.
Class II. None.
Class III. Ireland, Dewey; Garber and Macnaughton, equal; Bernfeld and Myerson and Prevost, equal; Hackett, Langlois, Kennedy.

LAW OF OBLIGATIONS.

Class I. Common, Dewey, Myerson.
Class II. Bernfeld and Lalonde and Rose, equal; Garber.
Class III. Théberge, Langlois, McDonald, Kennedy, Kelly, Hackett, Ram.

LAW OF CIVIL PROCEDURE.

Class I. Common, Bernfeld, Dewey.
Class II. Myerson, McDonald.
Class III. Langlois and Rose, equal; Prevost; Garber and Kelly, equal; Ram, Lalonde, Théberge, Kennedy.

LAW OF PERSONS.

Class I. Common, Rose, Myerson, Bernfeld, Dewey.
Class II. Lalonde.
Class III. Hackett, Garber, Langlois, Théberge, Prevost, Kennedy, McDonald, Kelly, Ram.

#13900757